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A comparison Case Study of Teachers' Perceptions of Technology and Multimodality in England and Kuwait

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A thesis submitted in partial fulfilment of the requirements of the
Manchester Metropolitan University for the degree of Doctor of Philosophy

Education and Social Research Institute
The Manchester Metropolitan University

July 2016

Abstract

The study focuses on understanding current pedagogical practices in teacher education, taking into account England's and Kuwait's historical, political and cultural backgrounds. The study emphasises the use of technology and the unique contribution of using multimodal learning in relation to teacher education in Kuwait, and indeed within the Kuwaiti and Arabic literature relating to teacher education.

A comparative case study research design was used and in total, 24 teacher educators and student teachers participated in the study. Two types of data were collected in both countries: video recording of lessons in which student teachers training to become primary teachers were taught how to use ICT to support teaching and learning, and interviews with student teachers and teacher educators. The video recording data was analyzed using multimodal analysis, whereas interview transcripts were analyzed using thematic analysis.

The findings from the multimodal data analysis showed teacher educators in England use more technology and multimodal teaching styles as compared to the teacher educators in Kuwait. The thematic analysis yielded four themes, multiple modes of representation; mixed methods; generation gap; and problems in learning and teacher education. The thematic analysis related to the findings from the multimodal analysis in showing differences and similarities between England and Kuwait with respect to technology and style of teaching.

The study has the potential to provide positive information for the teacher educators, student teachers and other faculty members of the College of Basic Education in Kuwait under PAAET (Public Authority for Applied Education and Training). The findings from the study can be used to present PAAET with guidelines that can widely educate teachers in Kuwait about multimodality, integration of technology and teaching methods.

Acknowledgements

Alhamdulillah, all thanks are infinitely to ALLAH for his many blessing. Glorify him to acknowledge the gratefulness towards his bounties, ALLAH guided me through the most difficult days, without ALLAH, I would not have reached the point I have now.

I would like to express the deepest appreciation to my direct supervisor Professor. Nicola Whitton who has the attitude and the substance of a genius: she continually and convincingly conveyed a spirit of adventure in regard to research. And an excitement in regard to teaching and encouraging me, her comments and questions were very beneficial in my thesis completion, without her guidance and persistent help this thesis would not have been possible. Through her continuous support and help I have improved my research skills and prepared me for future challenges.

I would like to thank my second supervisor Professor. Cathy Lewin whose enthusiasm for the “underlying structure” had lasting effect and for her helpful suggestions and support. I thank my third supervisor Dr. Lesley Lancaster for her guidance and support, I believed I learned from her insight into multimodality. I would also like to pay my gratitude to Tony Poulter and teacher educators and student teachers from England who helped me in my data collection process. Likewise I would like to thank Adel Hamouda, Ahmad Al-Hunayan, Khalid Al-kandiri, Abdullah Al-Mudairis, Jaber Al-Munifi, Mohamad Al-Qatan, Husain Mirza and other teacher educators alongside student teachers in Kuwait.

Foremost, I would like to thank my wonderful family and husband for the support and prayers, my beloved mother played a huge part in my progression including my father and brothers, specially my youngest brother Meshal who passed away. He was always in my thoughts as one who encouraged and supported me to achieve my goals academically he was my companion in my study. Also I thank my parents-in-law for their kind and heart-warming prayers.

Finally, remember that being grateful is not an option and being one brings us closer to those whom we thank and appreciate.

This thesis is only a beginning of my journey.

Dedication

Every challenging work need self-effort as well as guidance especially those who are very close to our heart. My humble effort I dedicate to my sweet and loving mother Amal and father Saad for their endless love support and encouragement, my brother Meshal for giving me the strength to chase my dream, and my husband Abjad who has always been there for me, understanding and encouraging in my many moment of crisis, and my sweetheart daughter Amal.

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Chapter 1: Introduction

My education journey led me to choose as the topic of my thesis: the interaction between multimodality, technology and teacher education. This has interested me since I graduated with a bachelor's degree in multimedia design in England in 2000, and has further led me to complete my master's degree in visual learning, also in England.

During my study abroad I faced many difficulties in learning. I was accustomed to relying on the teacher to seek any information with respect to learning materials. This is because I completed my education up until the end of secondary school in Kuwait and every student there was told that the teacher was the centre of learning and information. I, therefore, had the same expectation from my teachers in England; however, and to my surprise, this was not the case. The teachers during my education in England helpfully guided me towards more independent learning. Although independent learning was difficult to adopt at the beginning of my degree, I gradually overcame this problem and started to understand the nature of education in England.

The discrepancy I encountered between my education in England and Kuwait led me to compare teaching approaches, learning methods, curricula, syllabi, technology resources available and the general infrastructure of education in England and Kuwait. I compared myself and my peers during my higher education experience in England and found them to be more comfortable with technology and confident in independent learning as well as working in groups. In the beginning I lacked that confidence, as mentioned, and it took me time to develop similar skills as my fellow students.

Upon reflection, I came to the conclusion that my education in Kuwait from kindergarten to secondary level was rigid and repetitive. I did not form any relationship with my teachers; instead, the whole school environment was strict. In England I found myself comfortable in approaching my teachers for any further clarification and I felt I was able to voice my opinion, whereas in Kuwait I considered my teachers to be in a position of power and authority, because we had little or no class discussion. This was my opinion and experience, and can of course not be generalised to all teachers in Kuwait.

After I completed my education in England, I started teaching at the Public Authority of Applied Education and Training (PAAET). This organisation is responsible for offering vocational courses and is the sole institute providing training in teacher education in Kuwait. I joined the College of Basic Education for Girls as a teacher educator of computer principles. I taught students the basics of Microsoft Word and other computer programs, such as InDesign.

While teaching at PAAET, I began to reflect on the educational experiences I encountered in England and started to compare them with Kuwait. I realised that my own education in England had been different from what I was teaching to my student teachers in the College of Basic Education. I was teaching very basic skills of Microsoft Office with no reference to children. In fact, most of the teacher education material was dense learning of the curriculum rather than teaching student teachers how to teach. This was the point where the terms I became familiar with in England pedagogy, multimodality, teaching approaches, technology-based learning and mixed methods – came to the forefront. My teaching experience at PAAET in the field of ICT made me realise that I could use my education journey to design research that would offer a comparative case study of the teacher education in England and Kuwait.

My passion and interest deepened when I started to see the challenges teacher educators and student teachers were experiencing during the training due to the outdated curriculum and poor management of the institute. Then, the faculty where I taught chose me to study for a PhD, in order to find solutions to the problems in teacher training, as the faculty had a need for current research. They chose me, because I could employ my previous experience during the research and I have a background in technology and computing from my bachelor's degree and master's qualification.

I chose to focus on the pedagogic implications of multimodality and technology, because this is a need of the faculty. The concept of multimodality, which is theory, tool or method to construct meaning through semiotic resources and modes (Jewitt, 2009), was introduced to me during my master's degree and I believed it would work well as an analytical tool as well as a pedagogic approach, and it would allow me to understand, investigate and evaluate modes and modalities of presentation. I would also be able to focus on the cultural, political and historical differences between England and Kuwait. I was aware before starting my PhD

that I would likely face problems in implementing my findings in the Kuwaiti teacher education system. Many researchers have reported that the current status of teacher education in Kuwait is unsatisfactory (Al-Nakib, 2015; Al-Harbi, 2014; Al-Duwaila, 2012). This is the result of little enforcement of policies by the management who are responsible for monitoring policy implementation, as well as the outdated curriculum (Al-Nakib, 2015). The findings from the present study are likely to be a gateway for further research and perhaps a starting point for the management of PAAET to reconsider the curriculum, resources and teaching methods used for teacher education in Kuwait.

1.1 Statement of research problem

As mentioned above, teacher education in Kuwait is experiencing multiple challenges. The intention of this thesis is to examine the issues and show that this examination might lead to a review of current education practice in Kuwait and England. The aforementioned studies exhibit technology, pedagogy and curriculum to present reoccurring issues in Kuwait education. In the context of this study it is appropriate to explore these issues separately first.

Starting from the curriculum, Al-Nakib (2015) states that the computing curriculum is very basic and does not educate children in advanced technology skills for higher education or future work. The student teachers are taught skills that in England are taught at primary level. The curriculum in Kuwait has not been revised for a long time, which suggests that developing teaching concepts, especially with respect to technology, have not been introduced yet. This leads to a lack of technological resources, which is another issue. Student teachers at the College of Basic Education do not have access to the latest technologies such as iPads; in fact, the available equipment is outdated, as pointed out by Al-Harbi (2014).

The teaching approach employed in Kuwait is classified as a major problem by students, especially in higher education. The students' opinions reported in surveys suggest that teachers put little to no effort into building rapport between themselves and students. The teachers consider themselves to have more power and authority than the students, which even leads some students to withdraw from their studies (Fattahova, 2013). This is related to poor management by PAAET, which provides little to no training to teacher educators on new or revised teaching practices. Further evidence comes from an unpublished Cambridge

International Examinations study (2008), which suggests that teacher educators in Kuwait lack training and are perhaps reluctant to change and adopt alternative methods of training. Kuwait entered into a contract with Cambridge International Examinations to train fifty lecturers from PAAET for two years in subjects such as design practice, evaluation, assessing progress and achievements, in order to improve the teachers' effectiveness. At the end of the course, only two teachers remained, whereas the other 48 teachers had withdrawn from the course. This shows that very few teachers in Kuwait are able to change and improve. However, this also raises the question of how this particular course was designed. It is well known that pedagogy practices of one country cannot be applied to another without acknowledging cultural differences (Yin, 2013). Therefore, the reason behind the withdrawal of Kuwaiti teachers from this course could be due to the way the course was taught and it may have been too westernised for their liking. However, lack of training as demonstrated in this course, can lead to less qualified and knowledgeable teacher educators.

The existing literature in the field of teacher education in Kuwait discusses the problems and challenges but mainly through quantitative research and measures, which only serve to quantify these challenges. A qualitative exploration of the dynamic orientation of the problems in teacher education is required to understand the experience of both student teachers (also referred to as students in this thesis) and teacher educators (also referred to as teachers in this thesis) in Kuwait. The in-depth orientation yielded by the qualitative approach taken in the thesis, allowed me to analyse the experiences and perceptions of student teachers and teacher educators in relation to the curriculum, technology, pedagogy and management. The comparison of Kuwaiti teachers and student teachers with their counterparts from England adds another dimension to the research. A comparison between England and Kuwait allowed me to draw out practices that can be applied to Kuwait with the intention of addressing the challenges currently experienced in Kuwaiti teacher education. Therefore, in light of the existing literature and my personal experience as a teacher educator in Kuwait, I believe the present research adds valuable findings to the literature and brings the reasons behind these challenges in Kuwait's teacher education to the surface.

1.2 Significance of the study

The focus of this study is to address the issues (outdated curriculum, lack of technological resources, teaching approach and poor management) mentioned in the previous section in Kuwait teacher education through examination of multimodality, technology and pedagogy.

The comparison of experiences in England and Kuwait will add an interesting dimension to the work. However, it is not the intention of this study to determine whether one education system is 'better' than the other; the comparison needs to do justice to the historical, political and cultural differences between England and Kuwait. Education is moulded and shaped by history and culture; therefore, it is necessary to reflect on the historical changes and developments encountered in both England and Kuwait. Some practices of the education system in England may not be appropriate for Kuwait. An example would be that in England there is co-education in universities, whereas in Kuwait's public higher education sector male and female students are in separate classes.

Returning to the main aim of the present study, which is to examine the teacher education with respect to multimodality, technology and pedagogy in England and Kuwait. These three elements are qualitatively different, but in the context of the present study they overlap. In order to examine these elements, it is appropriate to use multimodality as part of the study framework in order to examine the use of multimodal teaching practice in England and Kuwait teacher education.

Multimodality is a theory linked to social semiotics, with associated methodologies that focus on communication and representation beyond verbal language (Halliday and Matthiessen 2013; O'Halloran et al., 2010). Multimodality theory has been systematically developed to address questions on society and culture, for example the interactive relation between pedagogy and new technologies. For the purpose of the present study, multimodality is used as a tool and method, as well as a framework. With respect to it being a tool, multimodality has many modes that can be used to analyse certain behaviours and relationships. According to Jewitt (2009) most common modes in education are gaze, gesture, language, vocal features and graphic display. For example, how does eye contact while teaching help teachers in interacting with students? Likewise, do students learn better when teachers use visual aids while aurally explaining the content to the students? Therefore in the context of the present

study, these modes will be focused on as previous researchers have utilised them in order to yield effective findings in the field of education and multimodality.

Multimodality was chosen for the present study, because it relates to my passion for technology, with which it has a close relationship (Kress and Van Leeuwen, 2001; Jewitt, 2008). Multimodality has two aspects: semiotics resources (such as teaching and learning through visual, auditory and tactile means) and modes (such as gesture, posture, gaze, language and action). Both of these aspects, semiotic resources and modes, present teaching material differently from traditional teaching (such as lecturing or teacher-centred teaching). This is further related to technology, because through resources such as YouTube, iPads and projection screens, the teacher is able to visually share content with students. A more thorough discussion on multimodality in relation to the context of the present study is found in Chapter 5.

Multimodality appears to be relatively less explored in the Kuwait education system than in England. In England researchers such as Jewitt (2009) have directed the use of multimodality in education, for example paying attention to visual and spatial aspects in a classroom setting. Moreover, researchers in the UK, such as Kress and Van Leeuwen (2001), also focused on communicative modes like gesture, language and social semiotics in order to analyse their effectiveness in teaching and learning (see Chapter 3 for more details). Compared to the UK, in Kuwait there is little or no research available on the topic of multimodality, as discussed in Chapter 3. Therefore, the present study will be the first to introduce multimodality to PAAET in Kuwait.

1.3 Research aims

There are three aims for the present study, which are all provided with an explanation here.

1. *To explore and compare teaching methods in England and Kuwait by examining and comparing the bodily modes and semiotic activity used in university classrooms in these two countries by using multimodal analysis.*

This research contributes to the theory and understanding of teacher education in relation to multimodal learning and teaching, and the use of technology as an educational resource. Technology extends the range of semiotic resources available to teachers and learners. This relationship between these two elements aims to show how technology makes teaching through resources (such as a projection screen) more accessible. The relationship is further examined in the classrooms in Kuwait and England (see Chapter 5). The research design is an effective way to generate recommended teaching material for best practice in teaching and learning for Kuwait regarding the use of multimodal approaches to teaching and the integration of technology, in the form of guidelines that can be widely applied to education in Kuwait during a trial teacher education course based on multimodality.

2. To compare the teacher education systems and student experiences in England and Kuwait.

A comparison between the education systems and student experiences of Kuwait and England, and an examination of their respective learning and teaching environments, will show that there are implications of how student teachers learn to teach for how they teach in practice. The variations in each teacher education system will have considerable impact on the design, implementation and evaluation of teacher education courses in either country.

3. To undertake a multimodal analysis of teacher education practices that are designed to present an approach to student technology use in the classroom.

The multimodal framework in the present study will allow me to narrow down aspects that can be used to teach with technology in the classroom. Teachers in England are likely to consciously use a wider range of semiotic resources and practice in their teaching, but Kuwaiti classrooms still intend to use multimodality in their practice. For example, teachers in England use bodily modes as well as material, for example eye contact and gestures along with visual aids (projection screen), while teaching. However, in Kuwait the teachers may only use semiotic material, such as aural and

occasionally visual aids (Al-Nakib, 2015; Al-Harbi, 2014). The multimodal framework therefore enabled me to design potential guidelines for teacher educators in Kuwait to incorporate multimodality in their teaching, especially with respect to technology. These guidelines were designed taking into consideration the culture and traditions of Kuwait's society.

1.4 Research questions

All of the research questions respond to the aims of the present study as mentioned above. These research questions correspond to the methodology of the present study, which is qualitative in nature. The analytical methods chosen to examine the data from English and Kuwaiti participants are thematic and multimodal analyses. Both of these analyses will strengthen the findings of the present study. The following research questions are explorative and investigate teaching styles, technology use and multimodal factors associated with teacher education in England and Kuwait:

1. What are the perspectives of teachers and students in England and Kuwait with respect to multimodal teaching and learning?
2. What are teachers' and students' perceptions of technology-enhanced learning and its perceived problems?
3. Are any multimodal pedagogic practices from England appropriate for Kuwait's College of Basic Education (PAAET)?

1.5 Thesis outline

This section provides a brief overview of each chapter.

Chapter 2: Literature review

This chapter is a critical synthesis of the existing literature related to the context of the present thesis. The chapter covers learning theories that inform teaching approaches, like the teacher and student-centred approaches. The concept of multimodality is explained in-depth

with references to the present study, followed by discussion of the literature on the integration of technology in teaching and learning.

Chapter 3: Teacher education practices in Kuwait and England

This chapter focuses on the contexts of Kuwait and England. It discusses the historical, political, gender and cultural differences between England and Kuwait's education systems, as well as the current situation of teacher education in England and Kuwait. This chapter is a critical account of developments in education in England and Kuwait, and does not portray one country's education system as better than the other.

Chapter 4: Research design

This chapter focuses on the research design adopted to address the aims and research questions of the study. This chapter starts by theoretically defining the two case studies (England and Kuwait) and their relevance to the research questions. The chapter discusses the multimodal and thematic analyses by describing their strengths and weaknesses. The ethical considerations are also discussed, followed by the validity and reliability of the methods chosen to collect and analyse the data.

Chapter 5: Comparative multimodal analysis

This chapter describes the analysis of the multimodal data collected from the video recordings of the English and Kuwaiti classrooms. In this chapter small sections of the videos are taken for analysis and grouped into episodes and moments. This chapter shows the analysis of three pieces of data in connection with key communicative modes as outlined in the transcript of the video recording. Each piece of data is critically analysed individually. The pieces of data explore the beginning and end of the lesson in both England and Kuwait's classrooms.

Chapter 6: Comparative thematic analysis

This chapter describes the thematic analysis of interviews with teacher educators and student teachers in England and Kuwait. The chapter starts with an overview of the chosen themes. In total, four themes are presented in this chapter, with a critical discussion of quotes related to each theme. These themes include multiple modes of representation, mixed methods,

generation gap and problems in learning and teaching. The chapter shows a contrast between the perception of teacher educators and student teachers in England and Kuwait.

Chapter 7: Perspectives on teaching and learning in England and Kuwait

This chapter addresses the first research question, which is *what are the perspectives of teachers and students with respect to multimodal teaching and learning?* In this chapter, the student-teacher relationship and preferences are explored. The student-teacher relationship is discussed in relation to how teacher educators in the data formed a relationship with students; for example, whether they were formal or informal in their choice of language. With respect to preferences, the teacher educators and student teachers' preferred methods are examined in relation to multimodal teaching and learning.

Chapter 8: Perceptions of technology and education

This chapter focuses on answering the second research question, which is *what are teachers' and students' perceptions of technology-enhanced learning and its perceived problems?* This chapter is divided into two main sections. The first section is about teacher educator's and student teachers' perceptions in relation to technology. The second section explores the obstacles and problems experienced with respect to technology.

Chapter 9: Application of English teaching practice in Kuwait

This chapter addresses the third research question: *are any multimodal pedagogic practices from England appropriate for Kuwait's College of Basic Education (PAAET)?* This chapter is divided into three main sections: work placement, integrating technology in the teaching curriculum, and strengths and criticisms of learning theories. The learning theories in this chapter show how teaching approaches facilitate these theories during teaching and learning. This chapter ends by providing guidelines for a potential training course for teacher educators in Kuwait.

Chapter 10: Conclusions

This chapter draws out the findings on each research question and relates them to the aims of the study. The chapter has separate sections on limitations, recommendations and contributions of the present study to the field of teacher education, especially in Kuwait.

The chapter that follows next is a literature review (Chapter 2), which takes the main topics mentioned in this chapter (multimodality, pedagogy and technology) and critically explains them further in relation to the existing literature.

Chapter 2: Literature review

This chapter critiques research from areas considered most relevant to this study, drawing out its implications for the present thesis. As this thesis is concerned with teacher education, pedagogy, technology and multimodality, the first section briefly summarises learning theories underlying these. Each learning theory is explained and its applicability to the present study outlined. The second section outlines and critiques two general approaches to teaching: the teacher-centred approach and the student-centred approach, which are both influenced by learning theories. The third section covers the integration of technology in education, and focuses on the different kinds of technology used and the level to which it is embedded in teaching. This section is essential for the present thesis in examining the role technology plays in education. The last section concerns multimodality, the theory that underpins this thesis. The historical development of multimodality is described, followed by a discussion of its interrelationship with teaching and learning. The chapter closes with a summary.

2.1 Teacher education pedagogy

The aim of this thesis is to examine the differences between teacher education pedagogy in Kuwait and England in relation to teaching ICT. Understanding teacher education pedagogy is important in order to reflect on the current practices in both England and Kuwait. Pedagogy is commonly described in the literature as teaching children (Loughran, 2006; Danielewicz, 2014). Pedagogy is further defined as structured teaching and direct instruction by other researchers (Abadzi, 2007; 2008; Kirschner, 2002), who argue that children should be taught solely by teachers to avoid misinterpretation and cognitive overload. The concept of pedagogy draws upon guiding children to a planned education system.

However, in the present context pedagogy also refers to teacher education and how student teachers are taught (Danielewicz, 2014). The concept of pedagogy has developed from the traditional European method of delivering information to more knowledge and understanding-based teaching. Loughran (2006) describes pedagogy as a connectedness between student and teachers that builds the foundation for learning. The term 'teacher education' is equally important in the present thesis, as its focal point is how student teachers develop teaching skills and use technology during teaching. Teacher education in most

contexts is considered to be a certified learning programme for student teachers, who are also known as pre-service teachers (Boyd and Harris, 2011). Student teachers learn the skill of teaching and how it can be applied in practice. Student teachers entering the program concentrate on learning to apply teaching skills, whereas their teacher educators have the responsibility to teach them about teaching (Boyd and Harris, 2011). This suggests that teacher education has two foci: learning about teaching and teaching about teaching (Archambault and Barnett, 2010). The aim of this thesis is to examine teacher educators who teach student teachers about ICT pedagogy, teaching techniques and teaching approaches. The literature to be addressed in this section discusses learning theories underlying pedagogy, followed by teaching approaches and classroom management. Examination of these elements will assist in understanding the differences in teaching approaches and standards in teacher education in England and Kuwait later in the thesis.

2.1.1 Underlying learning theories

This section seeks to outline learning theories influencing pedagogical practices in the education systems of England and Kuwait. Different teaching approaches have different underlying theoretical assumptions. The learning theories selected for examination are behaviourism, social learning theory, cognitivism and social constructivism (Ormrod and Davis, 2004). These theories are chosen for the present study, because they inform the framework of the teaching styles (student-centred and teacher-centred) that are important for the analysis of the study. Examining these theories will enable me to understand and interpret the differences in the observed teacher education practices in England and Kuwait. In the present study, teacher educators from England and Kuwait may use visual aids to break information down so that the student teachers can easily comprehend and learn. Again, differences are expected between England and Kuwait, because due to cultural factors teachers in one country may use more visual and other media than in the other. It is important to understand underlying learning theories in order to tease out any differences in teacher education pedagogies in England and Kuwait. The differences will allow me to yield cultural differences between the two countries, especially with respect to how and why one learning theory is used more than another.

Learning theories inform the approach to teaching pedagogy. Behaviourism assumes that a learner is passive and their behaviour is determined by reinforcement. Cognitive learning theory is based on thinking and how information is processed inside the brain (Corno and Anderman, 2015). Social constructivism and social learning theories have also influenced teaching approaches. The underlying assumption of social learning theory is that new behaviour is developed by observation and through a reciprocal interaction between behavioural, cognitive and environmental stimuli (Corno and Anderman, 2015). Social constructivist learning theory believes that knowledge is constructed through interaction, interpretation and is shaped by previous experiences. However, these theories overlap each other, because they both recognise the importance of social settings for learning.

2.1.2 Behaviourism

Behaviourist theory, also known as reinforcement theory, was developed by Skinner (1948). This theory assumes that behaviour is determined by its consequence. Skinner categorised two types of reinforcements: negative and positive. Both of these reinforcements are believed to strengthen a behaviour (Mowrer and Klein, 2000; Burns, 1995). Negative reinforcement refers to a situation that uses negative consequence to stop or avoid certain behaviour. Positive reinforcement, on the other hand, refers to rewarding desired behaviour verbally or through praise (Skinner, 1948). In relation to the present thesis, teacher education pedagogy may involve student teachers learning how to apply behaviourism in the classroom in order to achieve certain behaviour from students. Teachers often practice behaviourism in classroom management by using reinforcements, either positive or negative (Coker and White, 1993). A teacher may use reward points in a classroom as a reward for those students who participate in a class discussion, for example. This can also be observed in teacher education, as – according to Loughran (2006) – it is the responsibility of teacher educators to instruct student teachers how to incorporate aspects of learning theories in teaching to manage classroom behaviour. It is, however, likely that Kuwait classroom management will be different from England's with respect to behaviour, mainly due to cultural differences.

Research shows that the application of behaviourism in education has mixed results. Simonsen et al. (2008) conducted a literature review of evidence-based practices in the

classroom, which looked at positive reinforcement. The results show that a child who is positively encouraged and rewarded through praise in school is likely to show an increment in self-efficacy (Simonsen et al., 2008). However, praise alone is insufficient according to Lipnevich and Smith (2008); rather, it is the associated communication, interaction and constructive feedback that improve the student's performance (Südkamp et al., 2012). This has implications for the present study as student teachers are likely to work through feedback given by the teacher educators during activities in the classroom. In line with the literature it would be interesting to examine how the teacher educator reacts to mistakes made by student teachers during the lesson (in the analytical and discussion chapters). For example, would the teacher use constructive criticism or follow the behavioural route of positive or negative reinforcement? (See Chapter 5, section 5.7)

Skinner further tested behaviourism with his teaching machine, which was built on the principle that learning can be shaped through conditioning (Klausmeier and Lambert, 1961). Skinner also proposed the concept of repetition in learning. In education applications, repetition and conditioning are widely practiced (Skinner, 1948), and factual information such as historical facts, mathematics equations and spellings is often learnt through repetition. Research has found that repetition allows important factual information to be retained in the mind ready for recall, whereas critics argue that teaching through repetition inhibits the learner from experiencing and exploring information (Duffy et al, 2012). Likewise, another method known as 'drill-and-practice' is used in schools to increase the speed and accuracy of students learning something particular (Driscoll, 2000). For example, students may use flashcards to increase their speed and accuracy in history quizzes. This concept has been transferred to computer games and students now play games to increase their knowledge of factual information on particular topics and subjects (Driscoll, 2000).

Behaviourism has its shortcomings and has been criticised by other theorists. According to the cognitivist perspective Skinner fails to recognise the importance of cognitive development, including problem solving and creative thinking. Bandura (1977) criticises the theory as being reductionist, because he suggests that humans learn through observation rather than personal experiences manipulated by positive or negative reinforcement. Applying behaviourism to learning excessively can hinder the learner from developing higher-

order learning skills, such as problem solving and critical thinking (Evertson and Weinstein, 2013).

2.1.3 Cognitivism

Cognitive theorists believe that knowledge is actively formed through mental representation, and previous experiences and knowledge (Mowrer and Klein, 2000; Bush, 2006). In this theory the role of the teacher is to facilitate discovery by providing the students with the resources and materials needed for the learning process. Loughran (2006) claims that cognitivism is an important factor in teacher education, as it teaches student teachers about metacognition. The student teachers are taught to not only teach the content but to also observe the learning environment and react spontaneously to the demands of learners. For example, teacher educators may begin by assessing the knowledge student teachers have about a particular topic before they start teaching. This modelling approach will encourage the student teachers to use similar techniques in their own teaching, to gauge how much their students know about a subject/topic prior to the start of teaching.

Teachers using teaching approaches informed by cognitivism act as a guide for the students. Likewise, teacher educators who use them, facilitate and guide the teaching process as well as learning content for student teachers. Research on learning through problem solving shows that it increases knowledge as well as metacognition (Ormrod and Davis, 2004).

Group work allows students to exercise their cognitive skills such as synthesising information together and learning from each other through discovery (O'Donnell and King, 2014). It is important to discuss group work, because in the context of the present study, the data analysis can reveal how student teachers work during group work and whether it facilitates learning. Whitton et al. (2004) reported that group work helps students to negotiate meaning and talk about a problem in order to solve it together. It also develops group cognitive skills and reasoning due to the process of discussion and collaboration. Cognitive approaches, such as the use of tools and visual aids, help students to comprehend the information and retain it (Fry et al., 2008). A study looking at the factors that affect students' self-efficacy in higher education reported that teachers using teaching approaches that include cognitive methods, such as classroom discussions, experimentation and problem solving, increase students' self-

confidence in their chosen field. In terms of teacher education, a recent study (Schafer, 2014) reports that pre-service teachers have the capacity to show elaboration and cognitive skills in learning activities. However, it is important for teacher educators to acknowledge the transition student teachers are making from being a student to a student teacher who has to learn the course content at the same time as mastering the art of teaching.

In the context of adult learning, cognitive theory can have its shortcomings. In cognitive theory it is expected that a certain amount of knowledge and thinking skills is accumulated by a specific age. This suggests that cognitive theory predetermines goals of attaining knowledge, which is over-simplistic. Learning is a complex matter; it is influenced by many elements in society, such as culture, and sociopolitical and historical factors, which cognitive theory does not take into consideration (Kirschner, 2002). Cultural differences in the educational contexts of England and Kuwait will be discussed in-depth in Chapter 3.

2.1.4 Social constructivism and modelling

The social constructivist approach is a collection of theories (such as modelling) and overlapping ideologies that view learning as a part of the social context rather than a separate entity. Vygotsky (1978) claimed that knowledge is not drilled into the learner, but that learning is rather about how the learner interprets the knowledge according to their understanding and belief system. Examining modelling and learning environments together will enable me to understand how teacher educators in both the UK and Kuwait use modelling in the social setting of teaching.

Regarding teacher education, particularly in England, research suggests that a social constructivist approach is useful to scaffold the process of learning (deep learning tailored to the needs of the student) for initial teacher education training. It helps student teachers in the initial training phase, because scaffolding and the associated learning process do not stop once training finishes; on the contrary, they continue and are reinforced by experiences and personal reflection (Fernández et al., 2001). Social learning theory also endorses Vygotsky's work. Vygotsky (1978) emphasises two aspects: language and interaction. He suggested that both these elements are important when constructing meaning, as through language we interpret and make sense of reality. He also introduced the zone of proximal development

(ZPD), which he defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). The main application of ZPD for teachers is the importance of support by a knowledgeable other.

Social learning theory has implications for classroom management, especially when the teacher wants the student to engage in classroom activities (Watson, 2013). Some examples of social learning methods are role-playing, debating a topic, solving quizzes, group work and making mind maps. All of these activities facilitate the engagement of students in learning and applying knowledge through class discussions and participation in group work (Ormrod and Davis, 2004).

Another aspect associated with social learning theory is the physical learning environment. Recently research has started to focus on how important the physical characteristics of an environment are in learning (Lippman, 2010). The learning environment refers to the class layout and décor, which implicitly (a colourful display motivates students) or explicitly (the information provided on the display helps students to understand the learning material) affect teaching and learning (Goman, 2008; Fisher et al., 2000). Based on social learning's endorsement of modelling, researchers believe that the learning environment should reflect the context of the subject/training under study. Lippman (2010) argues that the learning environment should be responsive and interactive for the learner. Also, the learning environment should be similar to the context and practical field of the course that the students are studying (Marton et al., 2004). In the present study, differences between the physical characteristics of the classroom in England and Kuwait will be explored.

2.1.5 Critical pedagogy

Critical pedagogy is used as an interpretative tool in the present study as it provides an analytical framework to understand the dynamics of qualitative data (Kumagai and Lyson, 2009). Although there are other pedagogical theories that could be used, critical pedagogy theory acknowledges cultural and historical differences, whereas other theories do not. Additionally, for the present study, it is important to consider the cultural, historical as well

as political differences in the use of pedagogy in England and Kuwait. Critical pedagogy is a combination of pedagogy, and critical theory and thinking (Brown-Jeffy and Cooper, 2011). It encourages students to develop consciousness and construct meaning through their social setting and culture, which all connect to produce knowledge (Liston and Zeichner, 1987). Critical pedagogy makes two main recommendations (Brown-Jeffy and Cooper, 2011). First, it says that teaching needs to be based on the students' culture and history, which should be adopted in the classroom environment. Secondly, the teacher should engage the students in critical pedagogy practices by making content relevant to practical life.

Giroux (2011) claims that critical pedagogy is an important factor in making today's education more holistic and humane. Giroux suggests that teachers alongside academics need to guide or coach their students in the culture and morals of society and polish the students' confidence and self-efficacy skills. In the present study, utilising critical pedagogy as a framework for analysis will allow me to see how culture and societal differences between England and Kuwait affect the underpinnings of the pedagogy used in the classroom.

Reflection is another part of critical pedagogy. Teachers may change their teaching methods considerably over the years and this is mainly the result of reflection (Ortlieb, et al., 2015). Similar findings were reported by Sang et al. (2010). Reflection is a tool that mediates quality, because by reflecting on which aspects of their teaching work best, teachers improve their pedagogy and teaching style as well as the learning style of students (Ellis, 2009). In the case of teacher education, student teachers can build on their previous knowledge while reflecting on current work experience.

2.2 Teaching approaches

Learning theories have shaped or at least influenced teaching approaches. In this section two major approaches to teaching are discussed: the student-centred approach and the teacher-centred approach. The teacher-centred approach has long dominated the education system and is still popular in many countries and regions, whereas the student-centred approach is a more contemporary approach to teaching. In this section both approaches will be discussed in relation to teaching philosophies and teaching styles, followed by an overview of their individual attributes. It is important to understand the differences between the student-

centred and teacher-centred approaches, since the aim of the present study is to compare teacher education in Kuwait and UK. Education in Kuwait is commonly teacher-oriented and students expect to gain knowledge and understanding mostly through their teachers (Al-Nakib, 2015; Al-Harbi, 2014), whereas in the UK currently teaching leans more towards student-centred learning (Anderson and Thorpe 2010; Jones et al., 2007). Both approaches will be defined in this section, followed by a discussion of their practices, strengths and weaknesses.

2.2.1 Teacher-centred approach

The teacher-centred approach considers the teacher to be the centre of knowledge and in control of the teaching process; in other words, the teacher is the focal resource of knowledge and information (Biggs, 2011; Garrett, 2008).

It has historically dominated the world of education (Goodman and Lesnick, 2004). Its main characteristics are that the teacher has the power in the classroom, and students are expected to follow the teacher's instructions, which result in an unequal teacher-student relationship (Okojie and Olinzock, 2013). This further leads to no interaction among peers, as the focal point of knowledge is the teacher, which leaves little or no space for classroom discussions. The main teaching strategies of the teacher-centred approach are lecturing, demonstrations, recitation, drills and practice (Brown, 2003). These methods of teaching are still used in today's education, especially for the learning of factual information, as mentioned. According to Mishra (2007) the two teaching styles, *demonstrator* and *formal authority*, that provide the framework of the teacher-centred approach are derived from these teaching methods. A demonstrator teacher acts as a role model of skill and knowledge, and expects his or her students to acquire the same set of skills and knowledge, which mirrors the idealism philosophies. A teacher following formal authority focuses only on the content, i.e. the curriculum, and feels it is his or her responsibility as a teacher to transfer this knowledge to the student.

Newman (2008) reports that the teacher-centred approach is universal and has become part of the education system, because students expect teachers to share their knowledge and expertise in their field (McAuliffe et al., 2008; Gibson, 2010). Crawford (2007) claims that for

higher education a teacher-centred approach is not appropriate, as most students pursue degrees with the intention of applying gained knowledge and understanding to their future job, which requires skills such as critical thinking and problem solving. These skills are inquiry-based and fuel creative thinking by analysing how abstract concepts and theories are put into practice, by thinking independently or through participation in class discussions. Research findings report that university students currently do not have the skills for independent learning, because they rely too much on their lecturers. This may be due to the teaching style used at their previous education level, which has made students respond to teachers instead of directing their own learning (Gibbs 1988). Keane (2011) found similar results in her study. She compared two groups of school leavers and examined their transition to higher education. The group from a traditional teaching setting struggled more with adjusting to the demands of higher education than the group that had previously been exposed to independent learning. However, Alessio (2012) suggests that even higher education students prefer discipline and direction from teachers and believe that teacher-centred learning yields better results. Alessio consecutively collected the opinions from students in studies that compared teacher-centred and problem solving-based learning (PBL). Findings from his study suggest that students prefer to be told what to do rather than discover information by themselves.

In terms of strengths, the teacher-centred still dominates the education system, as it is ideal for factual learning, especially for younger students, since they need more direction from their teachers (Corno and Anderman, 2015). With respect to weaknesses, the teacher-centred approach considers students to be empty vessels that need to be filled with knowledge. This leads to the main critique of this approach, which is that the learner merely absorbs knowledge by applying rehearsed formulas, without acknowledging his or her learning process (Schön, 1983). Another disadvantage is that this method of teaching does not empower the learner as he or she becomes dependent on the teacher's knowledge, without personal input or effort to understand the principles behind the concepts in the given field of study (Murdoch and Wilson, 2008). Additionally, this teaching method initiates a formal relationship between students and teachers (Arends, 2014). The teacher is not viewed as a facilitator or guide, which may put students off who want to engage in class discussions or informally participate in classroom activities (Biggs, 2011).

2.2.2 Student-centred approach

In the student-centred approach emphasis is given to the student rather than the teacher. The student-centred approach refers to active learning in which students use problem solving and inquiry to discover questions and their answers, and discuss and debate all during the class or lesson (Biggs, 2011; Stiggins, and Chappuis, 2005; Miller, 2012; Abraham et al., 2014). The teaching styles employed by the student-centred approach are the *delegator* and *facilitator* styles (Mishra, 2007). The delegator teaching style encourages students to design their own task, and requires students to work in groups to develop intrapersonal skills (Noddings, 1995; Grasha, 1994; Goodman and Lesnick, 2004). A facilitator teacher collaborates with the students in activities, and guides the student through the information process rather than just directing the student towards the right or wrong answer (Xiao, 2005).

The student-centred approach has evolved rapidly over the years and a vast amount of research has gone into it. Research suggests that it is more effective than the teacher-centred approach, because the student is not a passive recipient of information but rather plays an active role in learning. The attributes required of a teacher following the student-centred approach are friendliness, warmth, understanding and using positive language. A teacher following this approach does not have a harsh attitude but rather uses encouraging language to motivate the students towards learning and communicating (Biggs, 2011).

Freeman et al. (2014) made similar findings to Biggs (2011), implying that a student-centred approach forms a better student-teacher relationship. However, when Roorda et al. (2011) conducted a meta-analysis of 99 studies of the student-centred approach, they looked not only at the teacher-student relationship but also at students' achievements in terms of grades. Although they found that the association between the student-centred approach and teacher-student relationship was indeed positive, for students' achievement the relationship was low to medium.

A study exploring the opinion of pre-service teachers' epistemological beliefs about teaching styles (Chen and Jones, 2007) reported that pre-service teachers were more likely to adopt the student-centred approach than the teacher-centred approach. In the present study, the

perspectives of student teachers may differ, as England and Kuwait have very different cultural backgrounds and teacher educators may use different teaching approaches (Al-Harbi, 2014; Mohammad et al., 2011; Al-Nakib, 2015).

There is certainly a debate in the literature on whether a student-centred approach enhances students' academic performance or not (Liu et al., 2006; Credé et al., 2010). It is less disputed that a student-centred approach increases the student's engagement in class. Hockings (2009) reports that engagement is increased by the student-centred approach, because the students are active and take part in the classroom discussions, which boosts their confidence. This is investigated by Gauci et al. (2009), who studied two groups of students. Group one was taught with the student-centred approach and used tools such as clickers and actual participation in classroom discussions, whereas group two was taught through traditional lecturing. The results indicated that students in group one had more motivation to learn and also performed better in exams compared to group two. This indicates that engagement may increase the motivation to learn, because the learner is active rather than passive (Klimesch, 2013). Another popular element associated with the student-centred approach is team work (Missingham and Matthews, 2014). The student-centred approach suggests that collaboration and working in a group can extend the student's understanding of problem solving and his or her critical thinking skills.

In terms of strength, research indicates that the student-centred approach initiates cooperative and problem-solving learning, and that the approach creates collaboration between the students and the teachers. The teacher becomes the facilitator and guides the student towards interdisciplinary knowledge, as teamwork, collaboration, lesson closure activities and interaction are all part of the set of skills that is required when working together (Anderson and Thorpe 2010; Lynch and Warner, 2012). The teacher using a student-centred approach encourages students towards independent and active learning. For example, the teacher puts the students in groups and gives them tasks to complete independently through communication and interaction with each other (Biggs, 2011). Cornelius-White (2007) carried out a meta-analysis of 119 studies and reported that teachers who employed a student-centred approach by applying strategies such as classroom discussions and active learning were found to facilitate learning better than teachers who followed a teacher-centred approach.

Although the student-centred approach can be more motivational, it has its shortcomings. Disadvantages include a lack of structure in comparison with traditional methods, which can put unnecessary pressure on students, who may feel overwhelmed due to loss of direction from the teacher. Critics feel that the student-centred approach may not be ideal for learning new materials. The teacher may be expecting the students to discover these by themselves, whereas in reality the teacher is the key force in guiding and explaining new materials before sending students to study independently (Biggs, 2011). In the present study, it would be interesting to observe how teachers in Kuwait and England balance the student- and teacher-centred teaching approaches in potentially different ways. The dynamics of these teaching approaches are also related to technology and the different tools that facilitate teaching and learning (Wiske and Breit, 2013), which will be discussed in the following section.

2.3 The role of technology in teacher education pedagogy

Technology is viewed as a tool that assists teachers in the teaching process (Anderson, 2014; Tondeur et al., 2012; Beauchamp et al., 2015a). According to Lever-Duffy et al. (2005), “educational technology might include media, models, projected and non-projected visuals, as well as audio, video and digital media” (p. 4-5).

These authors claim that the use of technology by educators is limited to computer software for teaching and learning. Although there is nothing inherently wrong with this definition, I believe it is too simplistic and outdated. It does not consider technology to be part of the pedagogic process, whereas at present technology is considered an integral part of pedagogy (Barber et al., 2011). It is true that educational technology mainly refers to tools and software, but how the teacher teaches through these tools is also important. Therefore a better definition is given by Januszewski and Molenda (2013), who define educational technology as the practice of facilitating learning and improving performance by creativity, using and applying appropriate technological processes and resources for teaching and learning. This definition acknowledges that technology is more than a tool, and takes into account how it improves learning and performance from a pedagogic perspective. In this thesis the role of technology shall be explored by giving thought to how technology is used in teacher education

pedagogy, to what extent it is used, and the barriers teachers come across when using technology.

Integration of technology in education takes different forms. The most common type of integration is combining technological tools with traditional teaching methods like lectures. The combination of these two methods is also referred to as the mixed-method approach. Social media and networking also play an important role in education, especially in adult education, as a channel or platform for communication and connection (Ädel, 2011). In the present thesis, examining the use of technology in teacher education will set the stage for understanding current practices in England and Kuwait.

The mixed-method approach in education is also known as the blended method, which refers to the use of traditional teaching methods, such as lecturing, in conjunction with technology (Hesse-Biber and Johnson, 2015; Palak and Walls, 2009). Research shows that teacher education should focus on technology, especially for the preparation of future teachers (Kim et al., 2013). Polly et al. (2010) report that pre-service teachers who were taught the skills to integrate technology in their work, turn out to be more creative and motivating for students in the future (Higgins et al., 2012; Thorsteinsson, 2012). The study further adds that to develop an understanding of technology, mentorship from teacher educators is needed constantly, in order for pre-service teachers to use technology appropriately while teaching. Ertmer and Ottenbreit-Leftwich (2013) suggest that technology has become, or is becoming, a universal culture in education, and students expect teachers to use technology-based pedagogy. Involving technology in traditional methods of teaching engages students and makes them independent in their learning (Anderson, 2014; Lever-Duffy et al., 2005; Januszewski and Molenda, 2013; Wardlow, 2014).

Another study, by Sang et al. (2010), investigated how student teachers integrated educational technology in their work. The findings suggest that the use of technology by student teachers depends mainly on how interested they are in technology. Some student teachers preferred to use technology a lot in the classroom, whereas others used it in moderation. This shows it is important that technology is taught adequately in teacher education training, because student teachers are expected to be equipped and familiar with the skills needed to integrate technology while teaching. Preferences for technology could also be associated with the subject student teachers are specialising in. A small-scale study in

fifteen schools across England showed that technology is used in all subjects and a culture of technology is developing in schools. Every school aimed to utilise technology; however, many of the teachers claimed that technology does not replace teaching but rather assists in engaging students in the class activities (Laurillard, 2013a; Department for Education, 2012).

Technology in teacher education appears to facilitate classroom management. Use of technology-based tools, such as projectors, clickers, PowerPoint and other software, are time effective and enable teachers to manage the time dedicated to classroom activities. Holmes (2009) investigated the effectiveness of planning when integrating technology tools in teacher education training. The study revealed that effective planning, which included mapping the tools and resources to be used in the lesson, made teaching more convenient for the teacher. Also, teachers who are good planners are able to help make the learning process accessible for the students, because their lessons are organised and structured. Mutton et al. (2011) investigated seventeen student teachers completing their PGCE in secondary schools and found that planning is a fundamental step in teaching effectively to achieve the learning outcomes of lessons (Snowman and McCown, 2011; Holmes, 2009). Planning is a skill that is developed through teacher training and is reinforced when the student teacher starts to teach. The study also indicated that teacher educators should model planning by using technology in their lessons, so student teachers are always learning about planning ahead of time, explicitly and implicitly. Another study (Beauchamp et al., 2015a) evaluated the use of iPads by teachers and student teachers in England. The study suggested that teachers of the present generation prefer to use iPads, because it appears to them as a more natural way of teaching and learning as compared to reading textbooks and manually working through exercise books. The authors also suggested that especially for trainee students, using an iPad provided the freedom to work at their own pace.

Tondeur et al. (2011) carried out a systematic qualitative review of technology integration in the training of teachers at universities. The review shows that technology created a positive relationship between the teacher educators and institutes such as schools. It is important to teach student teachers how to use technology, especially technology that children in schools are using. This will equip new teachers with the skills and knowledge needed to integrate current technology with the traditional teaching and learning approaches used in schools.

Recent research suggests that social media plays an important role in teacher education (Niess and Gillow-Wiles, 2015). According to Niess and Gillow-Wiles, social media can increase interaction between peers, pre-service teachers, in-service teachers, instructors, mentors and the learning content itself. Quong and Sinder (2012) reported that student teachers (N=330) had quality interaction through online platforms. The student teachers were able to learn from each other, especially when struggling in practical settings, and the online medium helped to break down communication barriers. Roblyer et al. (2010) found that Twitter increased quality interaction between teacher educators and student teachers, especially in clarifying elements of the course content. Carpenter and Krutka (2015) found that student teachers reported social media as a convenient platform that creates geographical freedom to gain access to learning content. Niess and Gillow-Wiles (2015) report that online blogs are a great tool for student teachers to reflect on their experiences and allowing teacher educators to comment and guide them further.

Although social media is a good platform for communication, research also shows that pre-service teachers find content more valuable if it is taught in the traditional way, for example through reading books or face-to-face classroom discussion (Scanlon et al., 2015). Hutchison and Wang (2012) report that only a few student teachers and teacher educators participate in online communication, which isolates others who prefer to communicate through traditional methods. The research on social media in relation to teacher education shows mixed results. More research is required in this area, and the findings of this thesis will also add to the existing literature by reporting how often teacher educators and student teachers use social media in England and Kuwait.

2.4 Students' experiences of technology

Technology has become more prevalent in the past few decades in education, and this development potentially created a gap between generations (Kress, 2009; Prensky, 2009; Wang et al., 2013). The existence of this generation gap, however, is challenged by recent research.

Prensky (2001) first coined the terms *digital natives* and *digital immigrants*, although he himself did not believe in this distinction, because he later discredited his own theory (Guo et

al., 2008). Digital natives is a term he gave to the generation born in the era of smart phones, laptops and video-gaming, whereas digital immigrants refers to the people of previous generations that now use technology but were not born in the era of technology. Prensky believed it was necessary to introduce these labels in the education sector, because according to him students of today cannot be taught following the old educational system, since it does not accommodate the use of technology. The distinction between digital native and digital immigrant has become very popular with respect to education, although there is little academic evidence to support its existence (Bennett et al., 2008). Another approach to this argument is presented by White and Le Cornu (2011), who propose the concepts of *digital visitors* and *digital residents*. Digital visitors define a group of people that only use technology to complete a task such as work emails, or online shopping. Digital visitors do not believe in forming an online identity for the sake of socialising or networking. Digital residents on the other hand are similar to digital visitors with respect to using technology to complete certain goals, but they also have an online identity where they prefer to socialise and expand on their online image through various networking sites. The credibility of this concept is that it does not categorises two groups by age; rather, these terms focus on the need and motivation behind using technology, which Prensky's theory failed to acknowledge.

Nonetheless, the concepts of digital natives and digital immigrants are relevant for my study, because it might be that teachers from previous generations prefer traditional methods, whereas teachers of the present times may choose to teach with technology-based methods due to greater familiarity with such tools.

However, this hypothesis does not sit well with the existing literature. The critics of Prensky's theory argue that labelling someone a digital native based on their date of birth is oversimplistic and takes the term out of context. People born in the digital age have always been facilitated by high-definition TV, laptops, tablets and smart phones, which makes them automatically accustomed to technology. It is not possible to compare digital natives to digital immigrants in a like-to-like comparison, because a few decades ago technology was not as easily accessible or advanced in schools and at homes as it is now (Rosen, 2015). Using technology for entertainment and social networking is a skill that does not meet the standards of using technology for academic purposes. With regards to the present study, teachers

educate student teachers in how to incorporate technology while teaching and in personal learning, which is most likely to be achieved if the teacher uses technology in the class purely to teach academic skills instead of using it to be involved with social media (Gikas and Grant, 2013; Tess, 2013).

Researchers in support of the digital native theory fail to understand that experience and exposure are major factors in mastering a skill. Studies suggest that experience plays an important role in understanding technology and the use of technology is different in younger and older generations (Kennedy et al., 2008). The Oxford Internet Institute carried out a survey of the younger and older generations to collect evidence for the digital native theory (Helsper, 2008). The results indicated certainly that more young people used technology and internet compared to older people, especially over the age of 55. The research also investigated the way the older and younger generation used technology. The young generation mainly used technology (i.e. laptops and other gadgets) for social networking, entertainment and as personal diaries, whereas the older generation used the same technology for work projects, taxes, and programming. Furthermore, in this study, experience appeared to be an important mediator, because based on prior experience, technology was used for multiple purposes other than social networking. This study suggests that a gap does exist between the older and younger generations but defining this generational interpretation by age is over-simplistic and reductionist (Helsper, 2008). The present study will also show if older teachers use technology and have become as good with it as the younger generation teachers. Furthermore, that students of the digital native generation learn differently is considered a self-fulfilling prophecy by some researchers. Margaryan et al. (2011) carried out a study to investigate whether students born in the digital native era preferred to learn through technology. The study did not yield any significant difference in the preference to learn through technology of younger and older generations. Rather, students' learning style preference depended on their teachers' approach (Rogers and Finlayson, 2004). Margaryan et al. (2011) and other researchers – even Prensky himself – concluded that the concept of the digital native is a myth (Guo et al., 2008; Smith et al., 2013; Mason et al., 2008; Jones and Shao, 2011). This suggests that in the present study, despite the fact that it does not hold true, it is worth exploring the digital native theory, because it is a common myth that can influence the confidence of teachers and trainee teachers.

2.5 Multimodality theory

Multimodality theory is central to this thesis. It relates both to the teaching approaches, technology and interactions between students and teachers investigated, and to the analytical research framework used. This section first introduces multimodality theory and its history, followed by the theoretical assumptions and scope of multimodality in relation to teaching and learning. The third section relates multimodality to research by critically examining existing literature on multimodality and education. The section closes with a discussion of the limitations of multimodality theory (more exploration of multimodality theory takes place in Chapters 3 and 4).

2.5.1 An introduction to multimodality theory

Multimodality theory has been defined by a number of theorists (Jewitt, 2009; Kress and Van Leeuwen, 1996; O'Halloran, 2004), and each definition has a similar idea of what underpins it. Kress and Van Leeuwen (2001) define multimodality as “the use of several semiotic modes in the design of a semiotic product or event” (p. 20). Kress and Van Leeuwen (2001) and Jewitt (2008) add to this definition by suggesting that multimodality is about constructing meaning through semiotic resources and modes. The concept of multimodality became popular in education through the work of Jewitt and Kress, who suggest that multimodality allows the holistic study of classroom discourse between students and teachers through modes such as gesture, gaze, object and action. For the present study the use of object is not classified as a bodily mode, however it shares a close connection with action. This is because an object induces an action or vice versa. For example, a teacher purposely stands behind a desk (which is an object) to show to the students that he demands their attention (which is an action). Furthermore, a teacher uses these modes to teach and construct meaning for the student. For example, a teacher may use hand gestures to emphasise a certain point they are making while teaching (for details refer to Chapter, 5, section 5.5).

Multimodality theory derived from linguistic theory, which examines the dynamics of language (Chomsky and Halle, 1968). Originally, linguistic theorists relied on language as the

main resource to understand conversation. However, to comprehend the interaction between language and its surrounding factors such as space and expression (for example, the physical environment such as the layout of the classroom and non-verbal communication), some discourse theorists shifted from language as the sole focus of discourse, towards other modalities that assist language in a given social context. These modalities include facial expressions, gestures and vocalisation, which are now referred to as extra features of linguistics (Cruttenden, 1997); however, multimodality theory goes beyond this, seeing them as communicative modes in their own right. Discourse analysis is used across multidisciplinary fields that use language as a tool to analyse discourse and interactions occurring in a social context (Bloomaert, 2005). Discourse analysis developed in the 1970s and the emergence of technology was beneficial to researchers in the field, because the use of video and audio recorders allowed them to more accurately consider the social context in which discourse occurred. The use of technology enabled the researcher to comprehend the reality of discourse better than when he or she relied on language as the main source of contextual information (O'Halloran, 2011).

From the development of linguistics and discourse analysis came multimodality, which is a comprehensive field that gives importance to verbal and non-verbal communication in making meaning in social contexts (Jewitt, 2008; Barmaki, 2014; White and Gardner, 2013). In the context of the present study, bodily modes (such as gaze, language and gesture) and material modes (such as space, cultural artefacts and visual representations) are studied in balance in order to understand the connection between language and social context (Jewitt, 2009). For example, how does the language of teacher educators as well as their bodily movements impact their teaching style? Do teachers utilise space in the classroom to draw students' attention more towards the lesson? Kress and Van Leeuwen (1996) and Jewitt (2008) suggest that in the West multimodality is not a new concept; rather, it was always there, because non-verbal communications and visual representations such as pictures and illustrations have always been part of human discourse, including in the field of education. However, the term multimodality brought the scattered pieces of theories on phenomena such as bodily movements and gaze under one umbrella.

Multimodality is underpinned particularly by social semiotics. Van Leeuwen and Lachmann (2004) define the term as follows:

Semiotic resources are the actions, materials and artefacts we use for communicative purposes, whether produced physiologically for example, with our vocal apparatus, the muscles we use to make facial expressions and gestures – or technologically – for example, with pen and ink, or computer hardware and software – together with the ways in which these resources can be organized. Semiotic resources have a meaning potential, based on their past uses, and a set of affordances based on their possible uses, and these will be actualized in concrete social contexts where their use is subject to some form of semiotic regime.

(Van Leeuwen and Lachmann, 2004, p. 285)

This definition indicates that a resource was used to form meaning in order to understand a particular concept or element. In the context of the present study, multimodal interactions are closely viewed in a classroom setting to understand how teacher educators in England and Kuwait utilise language and gesture; first, to represent information and, second, to draw the student teachers' attention to the lesson. The next section explores the practical use and scope of multimodality in education as discussed in existing literature. The literature draws upon multimodality with respect to pedagogy and technology (Sankey et al., 2012). Multimodality and technology are particularly relevant to the present study, since the thesis focuses on how teachers from the two countries studied (England and Kuwait) use technology to convey information during teaching.

2.5.2 Multimodal teaching and learning

The literature shows how multimodality has changed teaching and learning in different ways, and how it has become a tool to manage classroom activities for younger students and those in higher education.

Birchfield et al. (2008) studied students of science and introduced a three-day teaching trial using a multimodal framework. Attention was paid to space, language, gesture, and human and computer interaction, and the process was videotaped. The study reported that the teaching trial was successful, as students showed increased confidence and knowledge of their subject, especially in relation to technology. This study shows that multimodal theory

can be applied to pedagogy, especially in reference to technology used in other subjects such as English and science. This suggests that semiotic resources and technology create interaction that can assist in learning and making meaning.

Edwards et al. (2014) investigated multiple modes such as language, images, artefacts, gestures, space and actions in relation to technology amongst mathematics students. The study reported that each mode contributed to the students' comprehension of the task they were solving. Non-verbal modes, such as gesture and gaze, were observed to be as important as language during teaching. Technology played an integral role in the representation of visual information or class material to the students. Thompson (2014), like Kress and Jewitt (2003), argued that meaning making does not solely depend on language, but that it is beyond verbal communication. Thompson reported that every student had a unique path to making meaning. Some students understood by listening, while others comprehended the same information through visuals and how the teacher presented the information through his or her bodily movements. Adsanatham et al. (2013) report similar findings.

The literature suggests that technology supports teachers and students for teaching and learning purposes. Studies suggest that a multimodal approach is effective for problem solving, mainly because it allows students to evaluate a problem from different angles (Bridges et al., 2012). Students can, for example, interact with their teacher and peers to form a dialog. Students can further use visual aids such as pictures or diagrams to understand content better (Jewitt, 2008). Culture is likely to influence meaning-making with respect to modes in multimodality. Every culture has its own interpretation of a mode; for example, the meaning of gesture is not the same in the West and in the Middle East.

Research also suggests that multimodality plays an effective role in developing a stronger relationship between teachers and students (Kress et al., 2014). Modes such as gesture and posture are now considered part of developing a teaching style due to cultural and research influences (Jewitt, 2003; 2005a; 2008). Teachers are becoming aware of the impact that modalities such as gesture and action have on education and are consciously integrating them into their teaching by utilising five semiotic systems (linguistic, audio, visual, gestural and spatial) (Anstey and Bull, 2010) to make content more meaningful to the students. For example, teachers use projectors in class to present the information visually to the students.

Similarly, teachers' gestures draw students' attention to the classroom to form discussions and interaction.

Multimodality is relevant to all education levels. Especially in the present study it is important to consider primary as well as higher education, because the student teachers who participated in this study are training to teach in primary schools. Therefore it is worth knowing how primary teachers utilise different modes according to existing literature. Caldognetto et al. (2004) videotaped three primary school teachers and evaluated the teachers' gestures and how children constructed meaning. The findings suggest that gestures play an important role in the construction of meaning, because they are part of the teacher's action in the classroom. For example, a teacher who uses hand gestures in order to emphasise a point he or she is making in class, suggests to the children that this information is important and needs their attention. In other words, interactions between language and gestures (such as hand movements) strengthen the process of making meaning. Also, children communicate better when the teacher is moving around the classroom and adds meaning to the verbal explanation of the class material through gestures.

Norris (2004) claimed that modes are interlinked and are key factors in multimodal research. The interaction between each mode explains the dynamic discourse in the classroom. Using language and gesture alongside semiotic resources (visual and auditory) assists the learner in making meaning. Bateman (2008) says that analysis is fundamental to understanding multimodality, mainly because semiotic documents (such as video or audio records) are complex entities. Therefore, without analysing each individual mode separately it is difficult to draw attention to any interaction that may exist between the modes, especially in the mechanisms of meaning-making.

2.5.3 Use of multimodality theory in educational research

Multimodality is also central to this thesis in relation to the analytical framework. Other researchers have used multimodal analysis in exploring classroom discourses. Shanahan and Roof (2013) carried out a case study of one primary school teacher by collecting field notes and digital video to analyse the multimodal perspective in the classroom. They reported the

teacher to be strategically interweaving communicative modes such as gesture and gaze into the language with the aim of engaging the children in the lesson (Quinlisk, 2008; Goodboy and Mayers, 2008). The multimodal analysis enabled the researchers to simultaneously examine language, artefacts and non-verbal communication. Another study by Bourne and Jewitt (2003) investigated the literacy experience of year 10 students in English class at secondary schools. They employed a multimodal method to understand the experience the students had beyond the scope of language (Frenzel et al., 2009). The study reported that language is indeed a complex phenomenon on the multimodal spectrum but is still only one component, as there are many other aspects, such as gesture and gaze, and ways of representation that shape the student's experience inside the classroom. A more recent investigation (Davidsen and Vanderlinde, 2014) carried out a longitudinal study that examined teachers' and students' behaviour towards technology-oriented learning. Data were collected for one year with video analysis. The findings suggest that multimodal analysis enabled the researchers to find out how teachers incorporated technology in their teaching at a gradual pace. The findings also suggest that multimodal analysis allows the researcher and teachers to work together since through revisiting the video the teachers were able to reflect on their performance, especially with respect to their teaching style.

Multimodal analysis has also been used in studies where the intention was to improve the quality and structure of a classroom. Tang et al. (2014) used multimodal analysis to study science education. Their findings suggest that subjects that are perceived to be taught through multimodality are now considered to increase performance in these subjects, as students prefer knowledge that is represented through different channels. For example, in science the use of visuals improved students' understanding of the subject and enhanced social interaction in the classroom.

Multimodal theory and methodologies are also used to research aspects of higher education. Recently Barton and Ryan (2013) studied reflection with respect to multimodality in higher education. The findings show that multimodal communication is an effective strategy for students and teachers to reflect; it allows them to become more creative, because the teacher uses multiple methods such as group work and learning through discovery, while using technology is likely to make learning more accessible for the students (Freeman et al., 2013). Another study (Archer, 2010) investigated multimodal texts in higher education. The study

reported that in higher education students are expected to read more texts than they were used to in secondary education, which can be exhausting. However, by using multimodal analysis the study was able to conclude that a combination of visuals such as an illustrative video on YouTube alongside text (from text books) enhances the student's learning in higher education. This is because the information is received through different modes instead of relying heavily on one mode of teaching, typically verbal/auditory.

Especially in the field of education, professionals have become aware of the multimodal aspects of their practice, but there is also criticism regarding some of its theoretical and practical aspects. Several researchers argue that multimodality is complex and that configuring many social factors in an environment may overshadow the underlying pedagogy in the teaching (Walsh, 2010). For example, multimodality comprises bodily modes and material modes and only focusing on them can often understate the theoretical aspects of pedagogy (such as learning theories and teaching styles). Also, the practical aspects of multimodality, such as video-recording and the resulting volume of data requiring analysis, can be challenging (Loveless, 2013).

Another critique of multimodality is that modes need to be interpreted and do not provide factual information. How do we know that a person's gestures mean what the researcher assumes they mean? Likewise, in terms of education, it is difficult to objectively gauge that learners learn more through visual modes than auditory teaching (Jewitt, 2009). This critique suggests that multimodal analysis is subjective and the validity of the analysis can be questioned.

2.6 Summary

This chapter has explored the areas relevant to the present thesis, namely learning theories, teaching approaches, multimodality and scope of technology. All of these areas were discussed in the light of teacher education pedagogy. With respect to teaching approaches (such as the teacher-centred and student-centred approach), research suggests that they are influenced by learning theories; and there appears to be a mixture of opinions amongst the researchers whether higher education students and teachers prefer a student- or teacher-centred approach. The research reviewed here suggests that a student-centred approach is

more engaging and motivating for students. This approach also provides an interactive learning environment for teachers and students. However, both student- and teacher-centred approaches have strengths and weaknesses, and it is the responsibility of teacher educators to teach student teachers how to use these approaches in balance (Loughran, 2006). Likewise, the concept of student engagement is promoted through the integration of technology in education. Technology is taught to student teachers with the intention of equipping them with the skills needed for teaching with technology. Teaching through mixed methods appears to facilitate the teacher; however, there is little support in the literature to suggest that integration of technology enhances learning (Poon, 2013; Al-Hageri, 1989). In fact, the terms digital natives and digital immigrants are now considered a myth in light of the existing literature. Finally, this chapter indicated the importance of multimodal theory and analysis. They can assist teachers in representing information in different ways, which can potentially make meaning-making easier for learners.

In the next chapter (a comparison of context and teacher education practices in Kuwait and England) topics from this chapter, such as teacher education pedagogy, and the roles of technology and multimodality, will be examined in the contexts of the English and Kuwaiti education systems, especially in relation to their cultural, historical and political context.

Chapter 3: Teacher education practice in Kuwait and England

This chapter highlights the differences between England and Kuwait in relation to the social context of education. This chapter will make the reader aware of the historical, political, cultural differences with respect to gender, teacher education and technology in England and Kuwait.

This chapter first reviews the historical and political background of education. It is important to introduce the reader to the historical, political and economic contexts that have affected both countries' current education system. The examination of the history will inform the reader of the latest trends in education and reasons behind their development, for example how technology has developed in the past two or three decades and its impact on pedagogy. Secondly, gender is relevant to the present study, because especially in Kuwait gender differences exist in culture and society, and inevitably have an impact on education. Lastly, I review the development of teaching practice in England and Kuwait, which is relevant to the present study, as it is concerned with the differences between teacher education in England and Kuwait.

3.1 Historical/political context of England and Kuwait

In order to understand why teacher training is as it is in both countries, reflection on relevant historical milestones in their respective education systems is important. For the context of the present study its most relevant aspects are higher education and teacher education, as the research focuses on teacher training delivered through higher education. Primary education is also important, because the student teachers participating in the present study were training to teach in primary schools. This section begins by briefly reviewing major historical events that took place in the nineteenth century and before, but will emphasise the historical milestones in education of the twentieth century in both England and Kuwait. Socioeconomic factors further influence the development of a country's education system and for the present study it is worth exploring how economy and status have impacted teacher education in England and Kuwait.

3.1.1 England's education history

It was not until the nineteenth century that primary education became an important subject for politicians in England. In 1870 the Elementary Education Act was passed, following the 1861 Newcastle Report, which urged the state to provide education for children aged five to thirteen years. Although this education movement was revolutionary, primary education remained limited and inferior (Blyth, 1965). Children attending state schools were mainly from working class families and the curriculum focused on three elements: reading, writing and arithmetic. The children from elite classes mainly attended grammar schools (Müller et al., 1989). The teaching approach in both types of schools at that time was teacher-centred, because the teacher's authority was accepted in society and children were expected to obey their teachers at all times. This trend of teacher-centred education was carried down the decades into teacher education pedagogy in the early twentieth century, Keating and Evans (2001) suggest. The pedagogy of teacher education was hierarchical and authoritarian, and focussed on transmission of knowledge by memorisation and rote learning. This practice is still observed today, especially in primary schools (Keating and Evans, 2001).

The early years of the twentieth century influenced the further development of primary education in England, fuelled by five factors (Blyth, 1965). Firstly, the growth of developmental psychology had an impact on the education system. For example, the work of Piaget (1977) and Skinner (1953) encouraged policy makers and political leaders to think about children's psychology and how early years of development are important (Mayer, 2009). Secondly, the work of Dewey (1933) had an impact as well, especially his arguments for changing traditional teaching in school to a reflective learning encounter. Dewey argued that children should develop their own personalities through reflecting on society and building their selves (Mayer, 2009). Thirdly, in 1918 children began to study with peers of both sexes. This was mainly due to the fact that women began to take part in society and fought for their rights in political decision making as well as education, which had an impact on allowing both genders to study together (Murray et al., 2011). Fourthly, the development of the welfare system gave children a secure place and rights in society. The welfare system began the notion of free education, which inevitably gave equal opportunities to children to get education. Fifthly, in 1923 the Labour Party initiated a movement to introduce secondary education in England. The introduction of secondary education shaped the stages of higher

education, for example secondary schooling preparing students for university (Mcculloch, 2007). These factors affected today's education especially in terms of the dynamics that shape the education system. Likewise, Dewey's work affected education as it is at present, since thinking individually and reflecting upon learning experiences have become an integral part of academia.

Another major milestone in the twentieth century was the Hadow Report of 1926, which recommended separate divisions for primary and secondary schooling. This had an impact on teacher training, because teachers began to train for either primary or secondary education. Hadow's report emphasised the need for multimodality (although this was not the term used at that time) as it recommended that children be taught with visuals alongside text instead of dense text books only (Board of Education, 1931). The report also suggested that the curriculum in primary schools should be based on activities and experience rather than presenting knowledge. These recommendations appear to reflect primary education today, because classroom activities are encouraged.

The Plowden Report (1967) brought another innovation to the education system, recommending a child-centred approach and introducing the concept of informal and flexible education. The emphasis shifted from *what* was taught to the children to *how* it was taught. Teaching style was an important issue in the Plowden Report (Galton et al., 1980) and it highlighted that children should not be told but rather that the child was 'an agent of his own learning'. A teacher should know the potential of each student and the pace at which they work. This is necessary for the development and progress of a student, because the teacher can help the student reach his/her potential. The Plowden Report also endorsed collaboration and group work and suggested that teachers should purposely assign activities to groups in which students learn from each other while the teacher acts as a guide. This concept of child-centred education remains important today, now more commonly referred to as student-centred learning. The report also said that the curriculum should be flexible and should revolve around the children rather than the teacher, and emphasised learning by discovery. The term 'learning by discovery' was introduced by Bruner (1967), who claimed that knowledge should be discovered by the learner rather than be told or delivered. Proponents of this theory claim that in discovery learning, learners have more autonomy, motivation, sense of responsibility, and creativity, and a tailored learning experience. An example of

discovery learning in today's curriculum would be activities that allow learners to find outcomes for themselves, especially through experimentation. For example, in a science class, children gather different materials and observe which float and which sink in water. The main criticism of this theory is that it creates cognitive overload and may lead students towards misconceptions, because they are not being taught by the teacher before carrying out experiments (Mayer, 2004).

Primary education in England was succeeding due to the introduction of the child-centred approach and a political demand by the government to increase literacy in England at the time of the Plowden Report (1967). However, there was an ongoing, influential political debate over who should have control over the curriculum: the teachers, the local authorities or the political party in power (Jones, 2003). In 1978, the curriculum came under the government and since then every time a new party comes to power the education system is affected in one way or another (Jones, 2003). The Education Reform Act 1988 established a national curriculum, which all schools have to follow, created by a team of professionals appointed by the government (Jones, 2003). The main implication of applying a national curriculum was that teachers consequentially had less autonomy. This was believed to be a positive movement for the English education system as a national curriculum would ensure equality and equity. This led to the introduction of Statutory assessment tests (SATs), which again made sure that all students were given the same examinations (Gillard, 2009).

However, there are many socioeconomically disadvantaged regions in England where schools are deprived of sufficient teachers, technology and other resources (Lupton et al., 2013; Connelly et al., 2014). This is the result of socioeconomic factors that have affected such regions; for example, the government invested less money there and people have fewer opportunities to find jobs and make a sound income (Stokes, 2015). Research also suggests that some schools in England have cutting-edge technology for their students, while other schools are struggling to get enough funding to meet the basic needs of their pupils (Lupton et al., 2013). A recent report suggests that the government has acknowledged the situation of deprived schools and is now investing in the most deprived schools in the country. Investment has been made to hire more staff, refurbish schools, and provide technology and teaching assistants. The report suggests that in 1999 the funding per pupil in primary school was approximately £2000 per year, whereas now it has increased to £5000 per year (Sibieta,

2015). This shows that the government has begun to recognise and address the lack of resources of some of the schools in poor areas in England. This information about deprivation of resources in some areas in England is relevant to the present study, because when student teachers go on work placements it is likely that some schools do not have the latest resources, which may decrease the effectiveness of the student teacher's placement, especially with respect to using technology in teaching (Anderson, 2014; Lever-Duffy et al., 2005; Januszewski and Molenda, 2013).

Higher education is also relevant to the present study, as teacher education training currently falls under higher education. Since the 1980s, three main developments in higher education have taken place: "the expansion in the number of universities; the removal of formal categories of institutions; and the growth of larger, comprehensive institutions" (Brown, 2011b, p. 13). There are currently 117 universities in England (Higher Education Statistic Agency). During the 1980s, teacher education colleges and polytechnics became part of larger universities and institutes in order to avoid competition and risk failure (Brown, 2011a). English higher education has become increasingly globalised and many universities in England have campuses and student exchange programmes in many countries around the world. At present, England has globally recognised, prestigious universities that attract local and international students every year and make a significant contribution to the economy (Baskerville et al., 2011). The development of universities in England could also be considered the result of research and academics who strive to bring new and creative ideas to the face of higher education.

3.1.2 Kuwait's education history

It is important to consider the development of education in Kuwait, as it informs current practice. Education in terms of teaching literacy and simple arithmetic through home schooling in Kuwait began in 1883, as a demand for preparing young Kuwaitis for trade (conducting import and export of goods with neighbouring and Western countries), and was initially based on religion and sermons. The influence of religion on Kuwaiti education is still present today; for example, learning about Islam is a compulsory subject for children in schools (Al-Duwaila, 2012; Saeid, 2010).

The first formal school opened in Kuwait in 1911 and was only for boys. In 1936 the Kuwait government took control of education and established the Knowledge Council, which became responsible for education in Kuwait. In 1937, the Knowledge Council established three primary schools; two for boys and one for girls. Segregation of gender in schools and higher education still exists today, which indicates that Kuwait has strong religious principles embedded in today's education system. Gender segregation in Kuwait is practiced as a result of adhering to the Islamic principle that prohibits the unnecessary interaction of men and women (Moran et al., 2014; Akechi et al., 2013). Therefore in the public education sectors male and female students do not study in the same classroom. Secondary education was introduced in 1953 when two secondary schools were opened; one for boys and one for girls. Further developments included a curriculum revision in 1954, the introduction of kindergartens in 1955 and a focus on literacy from 1957 on (Al-Duwaila, 2012).

With respect to higher education, in 1966 Kuwait University was established, which is the only public university, offering many different academic courses. Kuwait University is comprised of seventeen colleges and accommodates approximately 40,000 students in several faculties. Although there is only one public university, it is big enough to offer free education to all young Kuwaitis who have passed their secondary school exams. Admission in Kuwait University is only given to Kuwaiti citizens, so one large university may be enough, since Kuwait is a small country (Al-Duwaila, 2012; Al-Nakib, 2015). However, opening more public universities is being debated by political leaders, since this could lead to better resourced faculties. The Ministry of Education could accommodate the existing university and make it more resourceful, but research suggests that policy makers are not enforcing policies that could potentially bring changes to the current higher education system with respect to resources, curriculum and teaching methods (Al-Nakib, 2015).

The provision of higher education in Kuwait is different from that in England on several accounts. Firstly, there are many more universities in England; however, they are not free for students and although there are some courses such as nursing and teaching that have bursaries, these are likely to be phased out in the near future (Swain, 2016). Kuwait offers free higher education to all willing Kuwaitis, whereas in England every student needs to self-fund their higher education. This main difference in the provision of higher education between England and Kuwait is probably mostly due to their historical development and

resources, which is likely due to the different political and economic development of the two countries. In terms of size, Kuwait is a smaller country with a rich economy, which enables the government to provide free higher education. Moreover, this opportunity is only available for Kuwaiti citizens, which again makes it easier for the government to facilitate students wishing to pursue higher education (Al-Sabah, 2015). England, on the other hand, is bigger in size and its political management as a country differs from that of Kuwait. It was affected by the recession occurring in 2008, which inevitably influenced the country's economy, and higher education is one of the country's largest revenue generating sectors (Department for Education, 2009).

With respect to power in education, the Kuwaiti government gained more control over education after Kuwait became independent in 1961. The government was able to form the Ministry of Education, which handles all education affairs. Education was made compulsory between the ages of six and fourteen and since then the literacy rate has increased tremendously to 93.3% (Casey, 2007).

3.2 Gender and education

In the majority of English schools males and females study together from primary education onwards, although there are some schools specifically for boys and girls, mainly private or grammar schools (Ivinson and Murphy, 2007). In Kuwait, boys and girls are segregated from the early years of education due to religious and traditional values. Most Kuwaitis consider it rude to shake hands with or even gaze at the opposite sex (Al-Ansari, 2002). Therefore, in the present study it is important to consider how gender differences work out in the relationship between students and teachers.

Historically, females were viewed as inferior to their male counterparts in England: work, status and education for women were generally looked down upon by men. It was not until the nineteenth century that a change began to occur in the education system for girls in England. However, education was restricted to primary level as opportunities were not widely available, particularly at secondary level (Apple, 2013).

The movement for gender equality took hold during the post-Second World War period and especially in the 1960s, when feminism became popular (David, 2015). This led the Labour

government to pass the Equal Pay Act in 1970 and the Sex Discrimination Act in 1975. Sex discrimination is still evident in employment, family and education, but the creation of regulatory bodies such as the Equal Opportunities Commission (EOC) and the Commission for Racial Equality (CRE) raised awareness of gender equality amongst the population. Local authorities were ordered to plan career development sessions for both boys and girls to provide equal opportunities (David, 2015). The involvement of local authorities ensured that sex discrimination in education became less and society began to accept women's education (David, 2015).

Moving to the 21st century, improvement of gender equality continued. In 2006, the Equality Act was adopted in England, which modified the previous two acts on sex discrimination with a stronger emphasis on promoting gender equality in the workplace and educational settings. Interestingly, the Universities and Colleges Admissions Services (UCAS) in the UK reported that in 2014 there were 333,700 female applicants compared to just 246,300 male applicants. These figures are alarming, as this gender gap is expected to become bigger than the social class gap in just one decade (Mathews, 2014). This implies that in the future, England can experience a gender gap once again in education, however the difference will be that women will outnumber men.

Despite government efforts to attract men to the teaching profession, women currently dominate it in England: 74% of teachers are female and 26% are male. In contrast, men are twice more likely to be head teachers than women (Welham, 2014). This again reflects the salient gender differences that have been apparent over centuries, which mean that recruiters believe that men are more capable of handling a position that involves working under pressure and problem solving (Grove, 2013). Another reason for the discrepancy could be that women tend to take career breaks to have children and then return part-time, which may reduce the chance of them working their way to higher rank positions (Hakim, 2006).

In Kuwait, before the twentieth century, education was solely based on Quranic teachings, which were taught by males to young men. In the early twentieth century, Quranic schools were under the power of religious male scholars or priests known as *mullahs*, who taught boys, and *mutawas*, who were female teachers who taught girls. In 1937 the first school was established for girls, which was more than two decades after the establishment of the first boy's school in 1911 (Al-Sabah, 2015).

Although education reform started for girls during the 1930s, society showed reluctance in accepting this change. At that time, women were strictly told to stay at home and forbidden from going outside for work, because it was a culturally conservative society. In the Islamic religion, men should financially provide for their families and women are encouraged to stay at home, although the religion itself does not stop women from working if they wish to. The culture and religion were mixed and resulted in gender inequality in the early twentieth century in Kuwait. Society in Kuwait assumed that there is no need for women to be educated, whereas the prophet Muhammad ordered both men and women to learn the knowledge of the world (Alsuwailan, 2006).

Until 1946 growth in the education of girls was slow. It improved after the discovery of oil, when there was an increase in women's education. From the 1960s onwards, attention for women's education grew rapidly and by now, 46% of the population in public schools are girls. This change stemmed mainly from the acceleration of Kuwait's economy. With the increase in revenue the government was able to invest in women's education and built schools around the country (González, 2013). The awareness of women's rights to education became widespread in Kuwait, especially after religious feminism became popular in the 1950s (Al-Mughni, 2010). Religious feminists in Kuwait began to challenge society on the basis of Islam, and said that religion was not the barrier to their education, but that it were cultural values that stopped them from learning in schools (González, 2013). However, all public schools and the university remain gender segregated due to Islamic rules that forbid people of the opposite gender to mix (Meleis et al., 1979).

The majority of teachers in Kuwaiti schools are female; the reason for selecting this career are the flexible working hours that allow women to work without compromising family duties and responsibilities. In contrast, in higher education the majority of teachers are male, perhaps because men are still perceived to be more responsible and in control of power. It seems that old cultural traditions surrounding gender difference in Kuwait still exist in the field of education.

The opening of Kuwait University had an amazing impact on the women who desired higher education. Prior to the establishment of Kuwait University, families were hesitant to let women go to university, because it meant sending them abroad (Al-Sabah, 2015). However, with Kuwait University women had access to higher education in the comfort of their own

country and immediately they availed themselves of this opportunity. In 1975, 61% of the university students were female and they were excelling in subjects previously dominated by men, such as the sciences (Alsuwailan, 2006). Men began to attend more vocational courses, as skilled workers were needed in the oil industry, or opted to study abroad. However, men that did attend universities and went for further studies abroad have more prestigious jobs compared to women (Al-Sabah, 2015). In the present study, for example, the teacher educators are mostly male. Overall, the literature on gender suggests that in Kuwait gender differences have become minimal, but that in certain areas, such as education, they still exist because of cultural and religious factors. It will therefore be interesting to examine the relationships between male teacher educators and female student teachers.

3.3 Teacher education and practice

This section focuses on teacher education in England and Kuwait and is organised into three subsections. The first sub-section explores the history of teacher education in both countries and how it has developed especially towards the end of twentieth century. The second subsection focuses on the present developments in the practice of teacher education in England and Kuwait. The final subsection discusses the role of multimodality and technology in the education systems of England and Kuwait. It is necessary to examine these aspects, as they are likely to be practiced differently in both countries due to their differing cultural, social and historical contexts.

3.3.1 History of teacher education

The following subsection will explore the political and historical milestones, and aspects such as technology in relation to the teacher education curriculum and teaching methods in England and Kuwait. A brief review of their histories will shed light on how the systems function at present.

Rapid changes occurred in the English education system after the Second World War. The need for teachers was so urgent that emergency schemes were introduced in order to train new teachers (Dent, 1977; Fieldhouse, 1996). At Goldsmiths College, London the first emergency training college opened and under this scheme 35,000 teachers were trained. The

political pressure for this development arose from Butler, who was the head of the Department of Education in 1944 and whose main goal was to educate the youth in Britain, as was evident in the McNair Report, which suggested that universities and training colleges should build stronger links (Furlong et al., 2006). The teacher training course was lengthened to three years in 1960 (Berry, 1973). The duration of a teacher training course at undergraduate level in England was between three to four years. However, in the 1980s additional teacher training was introduced, called Postgraduate Certificate in Education (PGCE), which is obtained after a three-year undergraduate degree. There are also some universities that still offer a complete four-year course (called Bachelor of Education), at the end of which the student is a qualified teacher. The 21st century brought another pathway into teacher education. Since 2013, 900 schools across England are offering training through School Direct, which has attracted many graduates (Morris, 2015). School Direct is a scheme designed to offer the equivalent of a university course to student teachers but with a more practical experience (Beauchamp et al., 2015b; Lamote and Engels, 2010). Moreover, School Direct allows student teachers to secure a job whilst they are training with a school (Department for Education, 2012). The problem of teacher shortages appears to be ongoing; as highlighted earlier, the lack of teachers in English schools is considered a crisis (Morris, 2015). New graduates are not interested in becoming teachers due to the large amount of paper work, constant changes in the curriculum after a change of government and the generally heavy workload (Coughlan, 2015b).

England's education system has evolved over the years from typical traditional teacher-centred teaching and learning to more student-centred learning (Biggs, 2011). This is especially found in higher education, where lecturers are considered mentors, and students are encouraged to explore and carry out independent learning. However, Simon (1999) criticised the student-centred approach in England and claimed "if each child is unique, and each requires a specific pedagogical approach appropriate to him or her and to no other, the construction of an all embracing pedagogy or general principles of teaching becomes an impossibility" (p. 42). For the present study it would be interesting to see how student teachers and teacher educators from both countries perceive teaching approaches with respect to pedagogy and if there are any cultural differences in adopting these approaches.

Post-independence Kuwait also faced chaos in the provision of teachers, mainly due to the lack of a teacher training provision. Prior to the establishment of Kuwait University in 1966, the only route to becoming a teacher was to complete secondary education (which students finished at eighteen years of age) and to start teaching without specialist training. Therefore, Kuwait relied heavily on teachers from other Arab countries who were qualified to teach (Al-Sabah, 2015; González, 2013; Al-Obaid, 2006). In fact, statistics from the 1960s suggests that nine out of ten teachers in Kuwait at this time were foreigners (Al-Sabah, 2015).

In 1982, the Public Authority for Applied Education and Training (PAAET) was established, which is the only body in Kuwait responsible for teacher education and other vocational training (Misnad, 1985; Al-Duwaila, 2012). The aim behind PAAET was to create a technical institute that catered for the workforce in Kuwait in order to overcome deficits in manpower and meet the country's needs with respect to technical labour. PAAET is the only institute in Kuwait responsible for applied education. It offers diplomas and a four-year Bachelor in Science (BS) award in education. Students can apply straight from secondary education for either, depending on the career path they wish to take. Upon completing the four year BS award, students can go directly into primary or secondary level teaching.

Although teacher training is now provided in Kuwait through PAAET, studies indicate that student teachers are dissatisfied with the training they are receiving (Al-Nakib, 2015). Teacher education in Kuwait is considered outdated and facing challenges that require improvement and immediate attention (Al-Duwaila, 2012; Fattahova, 2013). The main problems are that the Ministry of Education and PAAET take no action to improve the system. For example, student teachers in a recent study expressed that they felt incompetent to teach due to lack of training and exposure to the practical side of teaching (Basioni, 2015). In addition, student teachers rely on private tutoring during their teacher training, because they feel the teacher educators are not teaching adequately (Al-Atiqi et al., 2010; Badawi, 2015). These problems are likely to be reflected in the present study as the existing literature shows teacher education to be a challenge in Kuwait. Given this is a current issue, this thesis may reveal further insights into Kuwaiti students' perceptions of the teacher training provision.

3.3.2 Current practice of teacher education in England and Kuwait

Teacher education in England and Kuwait differs considerably and follows different pedagogic structures that complement the national culture of each country. The English teacher education system focuses on learning by doing, because it emphasises the practical element of teaching as well as its theoretical underpinnings (Chen and Jones 2007). The government in England has planned various routes for students to take in order to become qualified teachers, for example, students can go to university or join the School Direct programme. As mentioned above, teacher education in England is designed to expose student teachers to practice, therefore it is mandatory for pre-service teachers to complete 24 weeks of placement in schools alongside their course (Kerry and Mayes, 2014, Lofthouse and Thomas, 2014). Teaching is a popular choice for students in England and approximately 125 institutes are offering teacher education training (Department for Education, 2011).

Teacher education in England is designed to integrate theory and practice. In recent years, emphasis has been placed on reflection and how this can be used to develop teaching professionally (Thorsteinsson, 2012). Although there is little research that has explored the experience of student teachers in England, there is a longitudinal study (Hobson, 2006) that collected personal opinions and information on professional development of student teachers between 2003 and 2009. Hobson (2006) found that student teachers in England are equipped with both theoretical and practical knowledge, and build good relations with their mentors and supervisors. Work placements play an effective role in shaping student teachers to become reflective of their own practice as teachers (Kandiko and Mawer, 2013). With regard to the present study, the student teachers' experiences during work placements may suggest how teaching during training makes them more reflective and allows them to develop their skills and knowledge.

Although education in England has developed, there still appears to be problems, especially with respect to the shortage of teachers. The population of pupils is growing, whereas the recruitment of teachers has become a severe issue, as graduates do not appear to be interested in becoming teachers. Interestingly, teachers do not leave the profession for a better paid career; rather, research indicates that workload, constant changes in the curriculum and CPD requirements are the reasons for the shortage of teachers in England (Patton, 2000; Weale, 2015) Another potential issue is the multiple routes of getting into

teaching, which make the decision which route to take rather confusing for those interested in becoming a teacher. This is not necessarily a problem; however, it has been recommended that counselling and guidance should be given to students with respect to which path is most appropriate for them (Rolls and Plauborg, 2009). In England the teaching profession is struggling, which appears to be the result of multiple sociopolitical factors.

In contrast to England, Kuwait has only one institute that offers teacher education, namely the College of Basic Education, which falls under PAAET. After completing their secondary education, student teachers in Kuwait go straight into teacher training, which is a four-year bachelor's degree. Student teachers are only required to complete 38 hours of field work, which consists of observing teachers in the classroom. (World Data on Education, 2011).

In Kuwait, different teaching careers have different requirements. In most areas of education it is easy to secure a job, while in others it can be quite challenging. A job as a teacher in kindergartens, primary schools and general teaching in schools, is easily obtainable, because a newly qualified teacher can teach these upon completion of the bachelor's education degree. The recruitment process for school level jobs is not challenging, as recruiters do not ask for experience or even have expectations for a qualified degree (Basioni, 2015). Teaching is an attractive career for many students in Kuwait, due to the number of associated privileges, such as a good salary, flexible holidays, and having authority and power. The timings are especially ideal for female teachers, because they can easily adjust their family life to their work routine. As a result, the majority of the workforce in primary education is female.

As lenient as the hiring process is for elementary and school level jobs, so difficult it is for teachers to secure jobs in the higher education sector, since teacher educator posts usually require teaching experience, the same as in England. PAAET has set the requirement at five years minimum experience before a person can apply for the role of teacher educator. This is in fact a challenging and stressful experience for candidates. Higher education actually needs more teacher educators, but because candidates do not meet the experience requirement, management cannot hire people full-time (Aldhafeeri and Male, 2015). In order to cover the shortage of teachers, PAAET offers candidates with a master's degree short-term and part-time contracts for less pay (Basioni, 2015). Once their contracts end, new teachers replace the old ones, causing disruption in the education of students. The students studying at PAAET

often complain about this issue, which indicates that PAAET is currently experiencing management problems alongside the shortage of higher education teachers (Basioni, 2015).

The existing literature suggests that student teachers in Kuwait are not satisfied with their teacher training courses, due to the poor instruction provided by the College of Basic Education (Badawi, 2015; Al Shatti et al., 2011; Al-Nakib, 2015; Ghaith, 2013; Martin et al., 2007). Other research sheds further light on students' experiences of teacher education in Kuwait. Algharabali et al. (2014) conducted a study of the views of student teachers on their experience in higher education, especially with respect to teaching staff. The student teachers believed that the teacher education training was not adequate and the qualification at the end of the course did not provide them with knowledge of teaching or equip them with the skills to teach. The reasons for this were teacher educators' attitudes and the outdated curriculum (Yousef, 2013). Another reason given was the lack of assessments in which student teachers could test their theoretical and practical knowledge (Al-Nakib, 2015; Al-Sharaf, 2006). The data suggest that the designated authorities, such as the Ministry of Education and PAAET, are not taking any action to resolve the occurring issues (Al-Rashidi, 2009). This study is quite recent and was situated at the same location that the present study used to collect the data on teacher training in Kuwait. The student teachers observed in the present study are likely to express similar problems and concerns towards teacher education in Kuwait as reported in the existing literature. Other research sheds further light on students' experiences of teacher education in Kuwait.

3.3.3 Role of multimodality and technology in teacher education

Another characteristic of teacher education and general teaching in England is multimodal pedagogy as discussed in Chapters 2 and 3, (sections 2.6.2 and 3.3.3). Multimodality in terms of semiotic resources is more practiced in England than it is in Kuwait. Bodily modes and semiotic activity is part of the teacher education in England. This reflects the historical developments of English primary education discussed earlier in this chapter, namely that children should be taught with images and illustrations, and not just dense textbooks, which indicates that multimodality has long been culturally embedded, because the two have distinct functions: pictures help the learner to visualise the concept or material, whereas

writing adds meaning. This practice is common in the English curriculum, where most textbooks have images alongside writing.

However, Kress and Van Leeuwen (2001) suggest that every country's education system is likely to view modes in accordance with its culture. For example, with regard to the present study, Kuwait teachers may perceive the visual mode as a distraction for the students and may view language as an auditory mode and the ultimate semiotic resource for representing information, because it is culturally acceptable for teachers and students. Historically in Kuwait the auditory teaching style, which has been adopted from religious education, is common, as discussed in Chapter 3. This teaching style is embedded within the culture and society, and therefore people perceive and accept auditory teaching methods to be more effective in practice. Moreover, in Kuwait, a teacher is believed to be the source of information with respect to educating the learner about the subject, and using other resources such as technology (e.g. iPads) or visual aids (graphics and pictures) may be considered less educational (Al-Nakib, 2015). This does not only relate to Kuwait as in England students consider teachers the main source of information as well. However, especially in higher education students are expected to learn through other resources and gain independency as the culture and society demand it.

Multimodality is further associated with technology, because through devices such as projectors, teaching software and tablets, information can be presented visually as well as through text, auditory and tactile modes (Higgins et al., 2005). Digital devices really lend themselves to teaching using a variety of modes (for example gesture, gaze, language and action), which are a particularly integral part of teacher education in England. The connection with technology resonates to the present study, because I am interested in investigating whether the technology taught in primary schools is incorporated in teacher education.

The English history of education has seen a remarkable growth with respect to technology; from wooden pallets in the 1800s to the chalkboard and now interactive whiteboards (Harris and Wilson, 2003). The initiative to use digital technology in schools came in the 1980s, when the government ordered local authorities to place a computer in each school. A considerable growth can be seen in the use of computers and integration of technology in schools. For example, every school has a website and digital learning materials, and effort is put in making resources available to students, although it is not as frequent in higher education (BESA,

2015). Although there is more technology available in schools, the ratio of computers to students has not significantly improved, suggesting that more computers are still required in schools across England. This is a problem in schools especially in areas of England where there are minimal funds. Teachers face problems in accommodating all students with a computer even in an ICT (information computing technology) lesson (BESA, 2015). Technology and education share a close connection, as ICT became a core subject in England in 1995 (Hennessy et al., 2005). Core academic subjects teach core content and taking them is compulsory for students. In England, the core subjects of the national curriculum at school level are English, maths, science and computing. This shows that ICT, now called computing, is believed to be as important as other core subjects (Leask and Pachler, 2013).

The use of tablets is becoming popular amongst primary and secondary schools (Fleischer, 2012). A study commissioned by a UK charity for schools reported that 70% of all schools now use tablets in their daily teaching and learning. In 9% of the schools, the ratio of tablet per child is 1:1. Additionally, the number of tablets in schools is estimated to increase from 430,000 to 900,000 between 2014 and 2016. The government believes that the use of ICT enhances the child's skills that can be applied to almost every profession, which in the long run will benefit the economy and the employment situation in the UK (Clarke and Zimmermann, 2013). With regard to the present study, it is expected that student teachers in England are taught how to use technology during their training, because it is a skill that is demanded by the schools. However, teaching through technology is a higher-order skill, which teacher training also needs to cover. It is considered to be a higher-order skill because it develops skills such as problem solving and taking initiative (Madtes and Britt, 2013). Research suggests that during their work placements students gain confidence in applying their knowledge of technology and how it can be integrated in teaching (Tondeur et al., 2012; Hall and Smyth, 2016; Smyth et al., 2015; Fisher et al., 2000).

In comparison to England, there is a lack of awareness of the pedagogical value of deploying different modes in classrooms in Kuwait. There is little or no research to suggest that teachers in primary and higher education use or are aware of multimodality. This might be the result of a lack of technology, as research suggests that projectors and other technological devices make multimodality teaching easy, since they present information in multiple ways (Jewitt, 2009). Another reason could be culture; perhaps in Kuwait teachers are not aware that

multimodality such as bodily modes, for example gesture, gaze, language and action, can be used for teaching or they might have a completely different understanding of multimodality with respect to bodily movements. For example, a male teacher will be hesitant to show flexibility in bodily movements, such as open posture and proximity to the opposite gender. This suggests that multiple modes are likely to be interpreted differently in Kuwait and in England. This is further reflected in Smyth's work, which encourages cultural pedagogy and implies that culture and education share a connection and students should be able to engage their learning in a community (Hall and Smyth, 2016; Smyth et al., 2015; Fisher et al., 2000).

Reform with respect to technology in Kuwait began in 1998, when few schools had limited access to computers (Mohammad et al., 2011). Multiple studies from the late twentieth century to now suggest the use of technology in education is changing in Kuwait. The major themes of these studies are the dated curriculum, and lack of management support and teaching preparation (Badawi, 2015; Al-Hamdan, 2007). With respect to the dated curriculum, research indicates that the Ministry of Education in Kuwait has not fundamentally updated the curriculum since 1967 and that it is now incompatible with the education systems elsewhere in the world (Al-Shammari, 2000; Al-Najran, 1998; Al-Ali and Middleton, 2004). The curriculum does incorporate technology as a separate subject; only basic ICT skills are taught, such as how to use Microsoft Office, PowerPoint and the Basic programming language (Buarki et al., 2011b; Sayed and Baker, 2014).

Al-Doub et al. (2008) investigated Kuwaiti students' attitudes towards technology. The results indicated that students were keen to learn and incorporate technology into their education, but there was resistance to change from teacher training management. Incorporating technology is not a problem only experienced in Kuwait. There is resistance to the use of technology in teaching and learning globally (Blin and Munro, 2008). Weller and Anderson (2013) carried out case studies at the Open University (UK) and Athabasca University (Canada) to investigate resistance to the use of technology and digital teaching and learning. The findings suggest that both universities were excelling in the use of technology; however, resistance was still found, as especially the teaching staff was more comfortable with traditional methods, which were a black or whiteboard followed by textbooks. In contrast, the study also suggested that technology was a great channel to empower and communicate

as it allowed students to increase their knowledge of the subject they were studying (Weller and Anderson, 2013); Goodboy and Mayers, 2008).

3.4 Summary

In conclusion, the history of education in the UK is considerably more extensive than that in Kuwait. However, there are some similarities between the two countries, for example with respect to gender. Higher rank positions in education are mostly occupied by males, although the reason that there are fewer females in positions of authority could be due to career breaks for having children and family purposes. In Kuwait, however, gender segregation still exists in public education, which is mainly an implication of religion. Staff shortage also appears to be a problem for both countries.

The differences between education in the England and Kuwait exist mainly due to their different historical and political development. The comparison between these two countries perhaps cannot be considered like-to-like, because formal education in Kuwait, especially higher education, has only been available since the late 1960s, which is a significantly shorter period than in England (Al-Sabah, 2015). This suggests that comparing England and Kuwait is not possible, as one country began developing education long before the other was even independent. Taking this into consideration, Kuwait has done well, especially with respect to bringing its literacy rate up to 97% (World Data on Education, 2011).

However, in the area of teacher training and technology England has developed better course outlines and resources, although it still has shortcomings, such as teachers' heavy workload, which at present is forcing them to think about switching careers (Morris, 2015). In Kuwait, teacher training and technology are major issues, as most teachers at school and higher education level are foreigners, which causes culture clashes and sometime creates a language barrier. Another shortcoming is the lack of support from the Ministry of Education, which is creating a hurdle to adopting new and modern ways of teaching and solving teacher training challenges (Ellis and Loveless, 2013; Clarke and Zimmermann, 2013). England and Kuwait both have strong economic positions and one would expect the education systems to be equally strong. However, in Kuwait this is certainly not the case, as the education system follows traditional and outdated teacher education methods. There is, for example, limited practical

engagement in the teacher education course; students do not have adequate work placements in schools and therefore lack practical knowledge before starting their teaching careers (Ali and Magalhaes, 2008; Al-Rafai et al., 2015; Muhammad, 2007; Al-Shammari, 2011; Al-Obaid, 2006).

The next chapter will outline the methodologies chosen to complete the present study and why certain qualitative analyses are appropriate for examining the theoretical and practical aspects in teacher education in England and Kuwait.

Chapter 4: Research design

The purpose of this chapter is to present the philosophical assumptions that underpin this research, explain why the selected methodology is most appropriate for the present study, and describe the methods used for data collection and analysis. The present study is aimed at understanding current pedagogical practices in teacher education in England and Kuwait, taking into account their different historical, political and cultural backgrounds. It aims to inform the training of student teachers in Kuwait with respect to teaching and learning with the use of technology.

This chapter presents an account of research methods including multimodal and thematic approaches. It begins with a justification for a qualitative, interpretivist approach. The comparative case study approach is then discussed. This is followed by an overview of methods used, which presents a rationale for the use of interviews and video recording, presents the sampling strategy, and describes the participants. The theoretical background of the data analysis is described with respect to thematic and multimodal analyses, accounting for validity and reliability. The chapter closes with a discussion of ethical issues and concluding remarks.

4.1 Qualitative methods and interpretivism

Qualitative research is designed to understand the perceptions or behaviour of a target audience with reference to a particular issue or issues. It is commonly used in the disciplines of social science as researchers in these fields struggle to give meaning to the human experience through quantitative methods (Mackey and Gass, 2005). Qualitative research explores a phenomenon as it occurs naturally rather than manipulating the situation to support or reject a hypothesis. One of the perspectives of qualitative research is to explore why people behave the way they do. Hence, the accompanying qualitative questions that addressing people's opinions often begin with "*what, how and why*" (Beck, 1993).

This thesis explores perspectives, perceptions, opinions and thoughts of teacher educators and student teachers with respect to teaching and learning in England and Kuwait. Thus, the most appropriate research method for this study was qualitative. Education is a phenomenon

that is social and complex. It has “many layers of meaning” (Berger and Luckmann, 1966, p. 34), and the researcher has to “lift veils” (Blumer, 1976, p. 15) to discover its innermost meanings. In the present study I aimed to discover meanings attached to the student teachers’ or the teachers’ behaviours, or give an interpretation of their surrounding environment (Clarke and Mcphie, 2015). For example, in order to understand how education in England and Kuwait differs, it is important to reflect on how students and teachers perceive the course they are studying/teaching.

Some researchers, however, would argue that opinions and perspectives can be obtained through quantitative measures such as questionnaires and other survey methods (O'Reilly and Kiyimba, 2015). This can involve a large group of participants, strengthening the external validity of the study. However, the information gathered is primarily numeric (although some questionnaires are qualitative as well) and it is difficult to capture the complexity of phenomena (Creswell, 2015). In comparison, the present research requires understanding the depth and breadth of the topic under investigation. In educational research, the aim is to describe, explain, predict, understand, interpret, emancipate and critique, which can be challenging through quantitative methods (Creswell, 2013).

Qualitative research is subject to criticism. These criticisms mainly concern researcher bias and the generalisability of findings (Leininger, 1994). Critics argue that qualitative researchers’ instruments are not ‘standardised’ in comparison to those of quantitative researchers. They also argue that qualitative data is text and is filtered through the researcher’s interpretation, which makes the findings subjective and susceptible to bias. Furthermore, qualitative research involves small samples, such as observing a single classroom; therefore, researchers question the generalisability of the findings (Beck, 1993). Countering this, qualitative researchers take the position that critics fail to understand the social world and only view the world with quantitative lenses that reduce human behaviour and interaction to meaningless figures.

The present research is grounded in the interpretivist paradigm. The main assumption of interpretivism is that research cannot be objective as it takes into account someone’s direct experience, which is subjective. The interpretivist researcher is interested in "participants’ views of the situation being studied" (Creswell and Miller, 2002) and believes meaning is

constructed from the experiences shared by the participants. This paradigm also posits that causal links cannot be made when studying a discourse of the classroom as the teacher and the student construct meaning based upon knowledge, experience and resources, which is complex. Hence, the role of the inquirer employing an interpretivist paradigm is to “understand, explain, and demystify social reality through the eyes of different participants” (Cohen et al., 2007, p. 19).

With reference to the present research, an interpretivist paradigm is justified as it attempts to explain teacher educators’ and student teachers’ understanding of learning and teaching. Moreover, the viewpoint of the participants is the focal point of understanding the differences between teacher education experiences in England and Kuwait.

4.2 Comparative case study

A qualitative case study facilitates an in-depth investigation of a single phenomenon or multiple phenomena within its or their contexts from multiple perspectives. The philosophical underpinning of qualitative case studies is the interpretivist paradigm (Stake, 1995, because the data collection depends on the views of the participants who are being studied. The present case study focuses on comparing teacher educators’ and student teachers’ experiences of teacher education in England and Kuwait.

A qualitative case study is useful when the focus of research is to answer “how and why” questions and also when the researcher wishes to study participants in their natural settings. For example, in the present study I wanted to find out what the differences are in how student teachers from England and Kuwait experience their training. For this research a comparative case study is suitable as it is designed to examine two or more cases with the intention of comparing their contexts. Goodwick (2014) suggests that “[c]omparative case studies synthesise similarities, differences and patterns across two or more cases that share a common goal” (p. 1).

The comparative case study is a common method in the field of education research, being effective in exploring the way two different cases operate, within and across context (Goodwick, 2014). Through comparative case studies lessons can be learnt about educational

systems from around the globe. Comparative case studies can examine the underlying dynamics of education systems and help develop understanding of pedagogy, especially in teacher education (Crossley, 1984). Bassey (1998) suggests that the comparative case study is important for research on teacher education, because it can detect issues and identify solutions due to the in-depth nature of its investigation, and that it is ideal for theory seeking and theory testing

For the present study, the two cases are teacher education settings in England and Kuwait. These two countries are examined with respect to teacher education, including pedagogy, multimodality and technology, whilst taking into account how this has been shaped by the culture, policies and historical differences of the two contexts. The present study is sponsored by the Public Authority of Applied Education and Training in Kuwait (PAAET), who required a comparison of teacher education in England and Kuwait. In addition, the sponsor was interested in educational technology and therefore this study focuses on teacher education in relation to using ICT (information and communication technology) to support teaching and learning.

In comparative case studies both cases should be similar in order for the comparison to be justified and hold integrity. In the present study both cases, i.e. England and Kuwait, shared similarities: student teachers participating in the study were registered for initial teacher education qualifications in both countries. However, the structure of the courses in England and Kuwait is different. In England the participants were taking a postgraduate course in education (PGCE), a one-year teaching qualification undertaken after graduation in any subject (following a three-year degree course). In Kuwait the Bachelor of Education is a four year undergraduate course, which as in England leads to a teaching qualification upon graduation. There are no postgraduate teacher education courses in Kuwait. Student teachers from both countries become fully qualified teachers.

Other researchers have also used the comparative case study to explore the differences in education across countries. Morris and Williamson (2013) compared nine Asian countries to understand the major features of education and explore universality in education. Another study relevant to this research compared Saudi Arabian girls' education with the ICT policy and practice of England's education system (Babair, 2010). This comparative case study found

that ICT policy and practice from England were able to empower the girls' education in Saudi Arabia, although with consideration for the cultural, historical, political and, of course, religious differences.

The case study, although it is a popular method, has shortcomings. According to Colley and Diment (2001), case studies usually end up with too much data, which is itself a contentious problem. Excessive and detailed amounts of data lead researchers to omit data, which can result in an uneven representation of the information collected. Also, case studies by nature have little external validity, because they cannot be generalised to the rest of the population. This renders critics to consider the findings of case studies of little empirical value. Another limitation of the case study is that in order to yield the most objectivity in the findings, the researcher should be an expert in the chosen field. This can be problematic at times, because especially in comparative case studies, the researcher may have knowledge and expertise in one area instead of all areas of research. For example, in the present thesis, the researcher has substantial knowledge of Kuwait but not of England. However, with extensive research and support from supervisors, this limitation has been addressed.

4.3 Data collection

This section of the chapter will provide a rationale for the chosen methods of data collection, explain the sampling approach and describe the participants.

4.3.1 Interviews in qualitative research

The most common tool to gather data in qualitative research is the interview. An interview can capture the opinions, thoughts and experiences of individuals relating to a particular issue. In qualitative research there are three types of interviews: structured, semi-structured and unstructured (Seidman, 2013). For the present study the most appropriate type of interview is semi-structured. It is important to allow the participants to take charge when answering the question in case they believe it may require more in-depth information, which is likely achievable through a semi-structured interview. Moreover, researchers in the field of education argue that semi-structured interviews allow the researcher to be in control of the

interview whilst supporting flexibility to dig deep for the most relevant information (Drever, 1995; DiCicco-Bloom and Crabtree, 2006). I utilised the semi-structured interview approach as it is appropriate for small-scale studies. Also, the nature of semi-structured interviews allows the interviewer to probe whilst interviewing, encouraging the interviewee to describe their views in more detail (King and Horrocks, 2010; Pathak and Intratat, 2012). I am interested in gaining a deeper understanding of the experiences of teacher educators and student teachers with respect to different aspects of teacher training in England and Kuwait, such as preferences in the use of technology, classroom resources, modalities, teachers' attitude and teaching methods. The findings from the interview will allow me to compare the English and Kuwaiti teacher education system in a wider context.

Semi-structured interviews allow the interviewee to answer in detail. The less formal atmosphere can enable the respondent to be more relaxed, which may mean that they provide a more valid account of their experiences and opinions (Patton, 2000). However, semi-structured interviews are also subject to criticism. This type of interview is time-consuming and therefore it is difficult to interview a large sample (Patton, 2000). Kvale (2006) critiqued the interview method for a number of reasons. Amongst them is the asymmetrical power relationship of the interview, suggesting that a researcher shows dominance in the interview process, which may induce intimidation by the interviewer, thus resulting in a one-way dialogue. Supposedly an interview is to be a joint endeavour between two parties searching for answers on a topic through mutual understanding; however, according to Kvale (2006), this is not the case as the researcher is the interviewer, sets the agenda, poses the questions, probes on certain questions and ends the interview. This suggests that the interviewee has little or no say in how the interview is conducted. This could be due to the perception society has created of researchers, who are believed to be superior in knowledge and experts in the field in which they are investigating. While this is true to an extent, critics believe that in an interview, the interviewee is superior in knowledge, because their experiences and perspectives are needed to shed light on the area of research under investigation. Schostak (2005) holds similar views as Kvale (2006) but adds to the argument that during the process of interviewing, representation of true information can be lost, because the researcher's own perception and interpretation can take over. Schostak suggests that allowing the interviewee to express themselves on the topic can increase the chances of

true representation. In the case of the present thesis, the researcher made sure to allow the interviewees to express themselves and elaborate on areas where necessary. For example, some of the questions entailed an in-depth answer and the researcher used probes such as “explain more”, “how” and “what do you mean” in order for the participant to extensively explain the concept or phenomenon under discussion.

4.3.2 The interview process

An interview schedule contains a list of questions and the probes that will be asked to the participant (Seidman, 2013). For the present study, two separate interview schedules were prepared: one for the student teachers and one for the teacher educators. Although both schedules were similar, to gather more information from the student teachers with respect to their learning and practice, extra probes on how they used technology in their teaching and learning were added to the schedule. They were, for example, asked about their learning preference and teaching methods. It was important to gather extra information from the student teachers, because in the video analysis, only the teacher was found to speak and student teachers did not verbally add anything to the analysis. Therefore, the interview was a medium to gain more information on the student teachers’ perspectives, their opinions and experience of their teacher education.

In total, six main questions were asked to the interviewees, beginning with which subject the teacher educator or student teacher specialised in. This information was needed, because the answers to the interview questions were likely to be influenced by the subject speciality the participant has expertise in. For example, a teacher educator specialising in technology is likely to relate his/her answers to technology. Interview questions for teacher educators were based on the technological resources they used in the classroom, and their attitudes towards traditional and technology-enhanced learning and teaching methods. Questions were also asked about difficulties experienced when utilising technology in the classroom and how the use of technology affected the teacher-student relationship (see Appendix 1b for teacher educator interview schedule). Interview questions for student teachers were similar. However, the focus was on learning and identifying any difficulties the student teachers had

experienced on their course with respect to technology (see Appendix 1c for student teacher interview schedule).

For the present study, interviews were conducted in England and Kuwait. In England, the interviews took place in a quiet room at the university. In the room, only myself and the participant were present. The room was comfortable and at the appropriate temperature, which helped the participant feel at ease. The interview was conducted in the English language. The duration of the interview varied between 30 to 45 minutes for each participant.

In Kuwait, the interviews took place at the College of Basic Education, again in a quiet room where only the researcher and the participant were present. In Kuwait, the interviews were conducted in the Arabic language as participants did not speak English. The length of the interview was between 30 to 45 minutes for each participant. For the purpose of analysis the interview transcripts in Arabic were translated into English and the implications of this have been addressed further in this chapter (see section 4.4.1 below).

4.3.3 Video-recording the lessons in England and Kuwait

One aim of the present study is to compare teacher education pedagogy in England and Kuwait. In order to achieve this and to enable multimodal analysis I chose to video record lessons.

In the context of the present study, video analysis will enable me to study the social interaction and reflection between the teacher educators and student teachers. In addition, I can use it to explore how teacher educators utilise technology while training student teachers. I can reflect on the techniques the teacher used in order to make the teaching content relevant to the course being studied. For example, the teacher could be using gestures or action-based language when explaining lesson content to the students. Video analysis supports educational research, because it enables the critical analysis of naturally occurring behaviour and attitudes of teachers and students with respect to teaching styles, educational content, and teachers' and students' preferences in relation to learning and teaching (Goldman et al., 2014). Video recording also maps the social interaction beyond language. For example, Parks and Schmeichel (2014) evaluated the assessment of children in

primary school through video recording, which yielded the dynamics of social interaction in a classroom that cannot be understood through linguistics alone. The multimodality of video recording sheds light on the relationship between verbal and non-verbal communication, which is necessary for analysing phenomena of human behaviour from a holistic perspective (Parks and Schmeichel, 2014).

Researchers also claim that video data can produce pieces of evidence that can be saved and used later to analyse aspects not noticed before (Jewitt, 2008). Video can be shared and the participants can be asked to reflect on their actions (Jewitt, 2008). Moreover, data from videos can be used to support empirical findings. However, critics view video data as limited and biased to the field of the researcher (Jewitt, 2012). For example, the researcher may only record those events or select excerpts that are in line with what the researcher wishes to show to the reader, whilst on purpose excluding other elements of the event.

Therefore, the video analysis only shows a snapshot of the lesson rather than a complete picture. This can be a limitation, as it is possible that other lessons contained more interaction and activity than the one that was videotaped for the present study. Another limitation in video analysis is that researchers are more likely to subjectively interpret the data which can create distorted findings. For the present study, I followed each analytical step in order to show transparency in the analysis. This helped to avoid bias and distortion of findings.

Researchers who support the use of video data in research claim that if the investigator reflects, bias and subjectivity can be avoided. Keeping a reflective journal allows researchers to not only bracket their thoughts but also clarify them during the course of research (Ortlipp, 2008). This practice is believed by researchers (Russell and Kelly, 2002; Etherington, 2004; Mruck and Breuer, 2003) to reduce subjectivity and show more transparency in research. Through this practice a researcher is able to track the reflective account and how it has developed over a certain period of time (Ortlipp, 2008). An unavoidable disadvantage is that video data analysis is a long-winded and time-consuming process (Pink, 2006). For the present study, the entire video was analysed, in terms of carrying out a macro-analysis, as an overview, which was time consuming. The episodes from the macro-analysis were selected to complete the micro-analysis in order to yield the appropriate findings for answering the aims and research questions of the study.

The lesson in England used in this study was chosen for filming, because the student teachers were learning through technology and about technology at the same time; in this particular lesson they were learning about data handling. The duration of the lesson was approximately two hours and the lesson consisted of multiple activities. The teacher educator showed the student teachers different experiments involving sound, light, speed, statistical data and branching the data (which is a data handling technique in which similar items are grouped together). All of these data handling experiments were facilitated using technology. Once the teacher educator explained the experiments, the student teachers divided themselves into groups and carried out the experiments and completed the relevant work sheets in class. The lesson did not have assessments apart from filling in the work sheets, and the answers were discussed towards the end of the lesson with the teacher educator.

The purpose of the lesson in Kuwait was to equip the student teachers with the basic skills of operating Microsoft Word. The teacher taught continuously for approximately one hour. The teacher and the student teachers were working from the main textbook of the subject and doing class exercises with the help of the teacher's instructions. At the end the students were required to complete a class exercise, which was going to be marked by the teacher later.

The duration of the Kuwaiti lesson was shorter than the lesson in England. However, for the purpose of the present study, the length of the video did not matter as both lesson from England and Kuwait covered the lesson's aims and objectives.

4.3.4 Sampling approach

The purpose of sampling in quantitative research is to draw conclusions about the target population. Critics claim that due to smaller sample sizes used in qualitative research, generalisability is a challenge. For qualitative researchers, a small sample size is justified, because people's experiences can be studied in more depth. For example, interviewing up to twenty people to study a particular phenomenon is considered a sample of moderate size in the field of qualitative research (Ritchie et al., 2013). The most appropriate sampling strategy for qualitative research is non-probability sampling. As the name suggests, it is sampling not

done by chance, as this is not required for qualitative research; instead, the researcher chooses the sample that matches the study's requirement (Bryman, 2012).

For the present study, the sampling approach was a combination of convenience and purposive sampling. Convenience sampling involves recruiting whoever is available and accessible, and unguided selection of the participants (Creswell and Miller, 2002). Alternatively, in purposive sampling a specific sample is selected as a non-representative subset of a larger population. Here the researcher may need a specific group that meets set criteria to take part in the study (Riessman, 2008). The criteria for the purposive sampling in my study were that from each country (England and Kuwait), the participants must include both student teachers and teacher educators. The student teachers should be in the process of qualifying as new teachers and the teacher educators should be teaching at university level. In both countries, the lesson observed taught how to use ICT to support teaching and learning and both cohorts of student teachers were in training to become primary teachers. Convenience sampling was also involved in this study, because I had access to both sites: I was undertaking my PhD studies in the Faculty of Education at Manchester Metropolitan University (MMU) in England and I was an employee of the College of Education in Kuwait.

The major benefit of purposive sampling is that it enables in-depth investigation of the group that the researcher wishes to examine. Moreover, for validity and reliability reasons, a study that uses a purposive sample (particularly if it is homogenous) can be replicated by future researchers, which makes this sampling technique credible and trustworthy (Palinkas et al., 2013). However, critics believe that purposive sampling leads to subjective judgement and that the researcher can influence the participants to obtain desired results (Creswell and Miller, 2002).

4.3.5 Participant information

The participants who were video recorded were not necessarily the same as those interviewed, because most video participants were not available for interviews; only three student teachers in England participated in both strands of the study. Therefore, other student teachers and teacher educators from the education departments in both England and Kuwait were approached and a mixture of teacher educators and student teachers was

recruited. It was important to consider the teacher educators' perspectives on elements such as the use of technology, as they are the deliverers and role models of the training course and teaching methods.

Lesson observation

The participants for the lesson observation were approached via the teacher educators in the education faculties of the universities in both England and Kuwait. These two teacher educators had the authority to give verbal consent to allow me to film their lesson both in England and Kuwait. The teacher educators informed the students of the video recording and made them aware of the right to withdraw if needed. I selected teacher educators in both countries who had access to students and were teaching an ICT lesson. In England, the teacher educator taught ICT lessons (from year 1 to year 4 PGCE students) to three individual groups of student teachers a week; per term this equals twenty lessons. The duration of the lessons in England was two hours. For Kuwait the lessons in ICT, which constituted a basic course on Microsoft Office and Word, took place three times a week. The teaching time for this lesson was 48 hours for one term only in the bachelor of teaching programme. The duration of each lesson was one hour. For both England and Kuwait part of the aim of the ICT lesson was to enable student teachers to use technology in their own teaching and develop skills involving technology to support their own learning. For England the general aim of this course was to introduce the student teachers to ICT and how it can be used to conduct classroom experiments for subjects such as science.

The process of the video recording was explained to the student teachers and the teacher educators in both countries. With respect to consent, for the recording in England, the researcher was introduced to a teacher educator through one of the supervisors of the present study. Informed consent was then obtained from the teacher educators through email. For Kuwait, informed consent was obtained directly from the teacher educator by email. The teacher educators were both male, selected on that basis to examine the impact of culture and gender roles in teaching. The selection of male teacher educators was also the result of convenience sample, a useful comparison nonetheless. The class observed in England involved student teachers who were of both sexes, whereas the class observed in Kuwait involved female student teachers only. In Kuwaiti culture male teachers can teach female

students, but although there are no restrictions by law, female teachers prefer to teach female students only. I anticipated that Kuwaiti male teachers would have a hesitant attitude towards female students as it is disliked in Kuwaiti society when opposite genders interact more than necessary (Al-Nakib, 2015). It would have made the comparison easier if the Kuwaiti classroom had male as well as female students, but again due to religious restrictions the male students study in segregation from females. As I am a Kuwaiti national, I expected to find it uncomfortable working with mixed gender participants in England. However, the student teacher participants in England were all females by chance, which meant I felt comfortable immediately.

Interview participants

A second set of participants was recruited for the interviews. These participants were approached individually in England and Kuwait. Some of these participants were part of the video sample, which then lead me to request their class mates to participate in the interview. The expectation was to recruit a small sample, because with qualitative research it is difficult to interview a large amount of people, because it is time consuming. Initially I decided to recruit ten to fifteen people (including the teacher educators and student teachers) from both England and Kuwait. The end result for the sample in Kuwait was not far from expectation as the total number of participants was seventeen. In England, the number of participants came to a total of seven, which was below expectation. The reason for having fewer participants than planned is explained later. However, for qualitative analysis the sample size was sufficient to obtain data (Riessman, 2008).

In England, the participants were approached in the Faculty of Education at MMU and invited to participate on a voluntary basis (see table 4.1 for participant information) by a teacher educator who was recommend to the researcher by one of the supervisors, as mentioned above. Four teacher educators and three student teachers were interviewed. I had difficulty finding volunteering participants, because I focused on one campus, which had only a few teachers on the primary programme. All student teachers undertaking the primary programme have to attend ICT lessons. All of the teacher educators in the English sample except one specialised in ICT. The student teachers were all specialising in early years education with two focusing on special needs.

In Kuwait, again the participants were approached individually and asked to participate on a purely voluntary basis. They were approached through the teacher educator at the College of Basic Education. I am familiar with the college and the staff, because I am an employee of the college. In total, nine teacher educators and eight student teachers were interviewed in Kuwait. I had more access to participants in Kuwait, as I am a teacher there, and therefore, I was able to communicate conveniently with the teacher educators and student teachers on the campus. Another possible reason for more successful recruitment in Kuwait is cultural compliance, courtesy and politeness. Research indicates that Middle Eastern culture is polite and people are likely to help out because of respect and courtesy (Gregg, 2005), whereas in England, politeness and respect are equally important, but levels of compliance and conformity are lower than in Middle Eastern culture (Jucker, 2012; Grainger et al., 2015).

All the teacher educators interviewed in Kuwait were male, whereas in England there were two female and two male teacher educators. In Kuwait, teacher educators can be female, but they are significantly fewer than their male counterparts and they are not easily available. Therefore, I interviewed only male teachers in Kuwait. Table 4.2, concerning the Kuwait participants, also shows that all student teachers were females, because the college where the interviews were carried out is an all-female college. All the teacher educators were specialised in ICT and the student teachers were also focusing on e-learning and computing. Pseudonyms have been used for participants to protect their anonymity.

Participants' names	Teacher educator or student teacher	Age group	Sex	Area of specialisation
Natalie	Student teacher	20-25	Female	Early Years and Key Stage 1, specialising in SEN
Cloe	Student teacher	20-25	Female	Early years
Abbey	Student teacher	35-45	Female	Early years with SEN
Katy	Teacher educator	35-45	Female	Art, design, technology and computing
Joseph	Teacher educator	35-45	Male	Computing

Ian	Teacher educator	45-55	Male	Information and communication technology
Tracey	Teacher educator	35-45	Female	Primary English using technology

Table 4.1: Participant information from England for interviews.

Participants' names	Teacher educator or student teacher	Age group	Sex	Area of Specialisation
Aysha T	Student teacher	20-25	Female	Computer typing/ Computer typography for special needs
Raya	Student teacher	20-25	Female	Computer science
Maryam	Student teacher	20-25	Female	Educational technology
Khadeeja	Student teacher	25-35	Female	Computer science
Noor	Student teacher	20-25	Female	Physical education and sports
Husna	Student teacher	20-25	Female	Computer science
Sumia	Student teacher	20-25	Female	Computer science
Fatima K	Student teacher	20-25	Female	Educational technology
Dr Ali	Teacher educator	45-55	Male	Statistics
Dr Ehsan	Teacher educator	45-55	Male	Information technology, mainly in designing multimedia software
Dr Faisal	Teacher educator	45-55	Male	Statistics
Dr Ibrahim	Teacher educator	45-55	Male	Educational computer
Dr Hasan	Teacher educator	35-45	Male	General statistics
Dr Mahmood	Teacher educator	45-55	Male	Computer science
Dr Hammad	Teacher educator	35-40	Male	Computer science and mathematical statistics
Dr Jalal	Teacher educator	35-40	Male	Educational technology
Dr Omar	Teacher educator	35-40	Male	E-learning design

Table 4.2: Participant information from Kuwait for interviews.

4.4 Data analysis

In this part of the chapter, the data analysis procedures will be discussed in detail with reference to existing literature. Firstly, I comment on the transcription and translation processes undertaken to prepare the data. I next describe the thematic analysis drawing on Braun and Clarke's (2006) six phases of analysis. Finally, I present the multimodal analytical approach, explaining how the video recordings were analysed in different phases before arriving at the final analysis.

4.4.1 Translation

Translation is a process of understanding meanings, which requires the translator to exercise interpretive and analytical acts in the source language as well as elaboration and writing in the target language. In the context of research, taking data and translating it into a different language requires the researcher to interpret and analyse the semiotic meaning of the words used by the participants (Birbili, 2000). However, translating a foreign language, if not done adequately, can introduce bias and exaggeration into the findings. Translating from one language to another is a sensitive process, because one word in a language even with the same meaning may be used in a different context in another language (Sarantakos, 2012).

With reference to the present study, for both video and interviews, I had to translate from Arabic to English. Research suggests that when translating any qualitative data it is important for the translator to be familiar with the context or area of the data's topic as well as cultural aspects (Pym, 2009). Al-Safi (2011) outlines that Arabic is a versatile language as one word can have different meanings in different contexts, which are only understood by a native Arabic speaker. I am a native Arabic speaker and can also speak and understand English adequately, and I took cultural aspects into consideration when translating from Arabic to English. The context of language can contain elements such as humour and slang language that also need to be translated, otherwise their meaning is likely to be misunderstood.

The first data set was based on classroom observations and the identification of discourse, which was achieved through video recording a lesson in England and Kuwait. The transcript of the audio in the Kuwait video recording was translated into English. Firstly, the speech was

transcribed in Arabic. The Arabic transcription was rechecked against the original audio recording and then the content was translated into English (an example of this process can be seen in Appendix 3a). A similar process was followed for the interview data collected from Kuwaiti participants (an example can be seen in Appendix 3b). To ensure validity and integrity of the interview transcripts, the Arabic transcriptions were sent back to the Kuwaiti participants for member checking. Member checking refers to the process where the participants go over the transcripts and approve the content for validation (Carlson, 2010). A sample of the reflections on the transcripts viewed by the Kuwaiti participants is provided in Appendix 2. The practice of member checking, especially when interviews have to be translated, is encouraged as it assures more accuracy in the data (Bradshaw, 2001).

4.4.2 Thematic analysis

Thematic analysis was used to analyse the interview data. This method is commonly used in qualitative research and, like other types of analysis such as discourse analysis, requires intensive involvement from the researcher (Boyatzis, 1998). Thematic analysis attempts to draw upon the implicit as well as explicit meanings that are underneath the surface of the raw data (Braun and Clarke, 2006). These ideas are then categorised into themes, which are supported by evidence from the raw data for later analysis. Often critics argue that researchers provide insufficient details of the procedure of thematic analysis (Attride-Stirling, 2001). There are several methods for carrying out thematic analysis, which suggests a lack of concise and consistent guidelines. This has an implication for rigour, which raises concerns for the trustworthiness of the analysis (Riessman, 2008). However, Braun and Clarke (2006) claim that rigour can be brought to the analysis by providing transparency and validation. I followed the phases of analysis proposed by Braun and Clarke (2006) as they claim these phases make the research rigorous and credible. Therefore, the present study selected thematic analysis, because it has the potential to explore the data in-depth through rigorous procedures.

In phase 1, I familiarised myself with the raw data. This procedure involves repeatedly listening to and/or reading the data. I repeatedly read the transcriptions and made memos to highlight areas that could possibly be grouped together to form a theme or a subtheme.

In phase 2, I generated initial codes. These initial codes identified aspects of the data that appeared most interesting and relevant to the research questions. These initial codes are still considered raw data; however, they are the first step towards meaningful analysis (Boyatzis, 1998). Coding needs to be conducted in a systematic way as critics believe this to be the most fragile aspect of the analysis, since the researcher is likely to lose track (Braun and Clarke, 2006). For example, the researcher may exaggerate a code, whereas in reality it is not conveying the message the researcher claims it does. However, by following an organised system and creating memos, the researcher can identify later on why this particular code was of interest and how it can be grouped together with other codes to form another unit of analysis known as a theme (Kelle, 2004; Seale, 2000). I systematically highlighted all the codes and wrote memos on all of the transcripts for the later phases of the analysis (see Appendix 6a and 6b for a sample of the analysis procedure). The following table (table 4.3) illustrates how the coding was conducted, with examples taken from the transcripts.

Quotes	Coding
Participant 1: [Children] like to see what they have achieved, so if we practice something for a long time and then we would record them doing it and then we would play it to them on the screen so they could see how far they had come. (England, Teacher Educator)	link between technology and children's achievement

Participant 2: In classroom settings, I have to incorporate both. However, the traditional methods are more used, because even when I use technology, I stop and discuss things with the students by asking them questions to their retention from the information discussed. (Kuwait, Teacher Educator)	mixed methods better for learning
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Table 4.3 The main concept of a quote from the participant is being captured and coded in order to evaluate what is being applied.

Phase 3 can only begin when the researcher has identified all the initial codes and has enough data to work with. In phase 3 the codes that can be potentially categorised to form a theme are reviewed (Braun and Clarke, 2006). Furthermore, during this phase the researcher begins to think about the relationship between the codes and themes. Most of the codes become initial themes, but some may be discarded, because they are not strong enough to be used as evidence for the overarching theme. This decision is based on the strength of the evidence portrayed in the transcripts, as some codes may be considered too weak to represent a theme. I grouped potential codes to form six themes. An example of how this was achieved for one of the themes has been given in the diagram below (see figure 4.1).

The diagram illustrates that a group of similar codes was used to form a theme for subsequent analysis. The diagram also shows how codes were used to create sub-themes that corresponded to a global theme. The arrows show how they are interlinked.

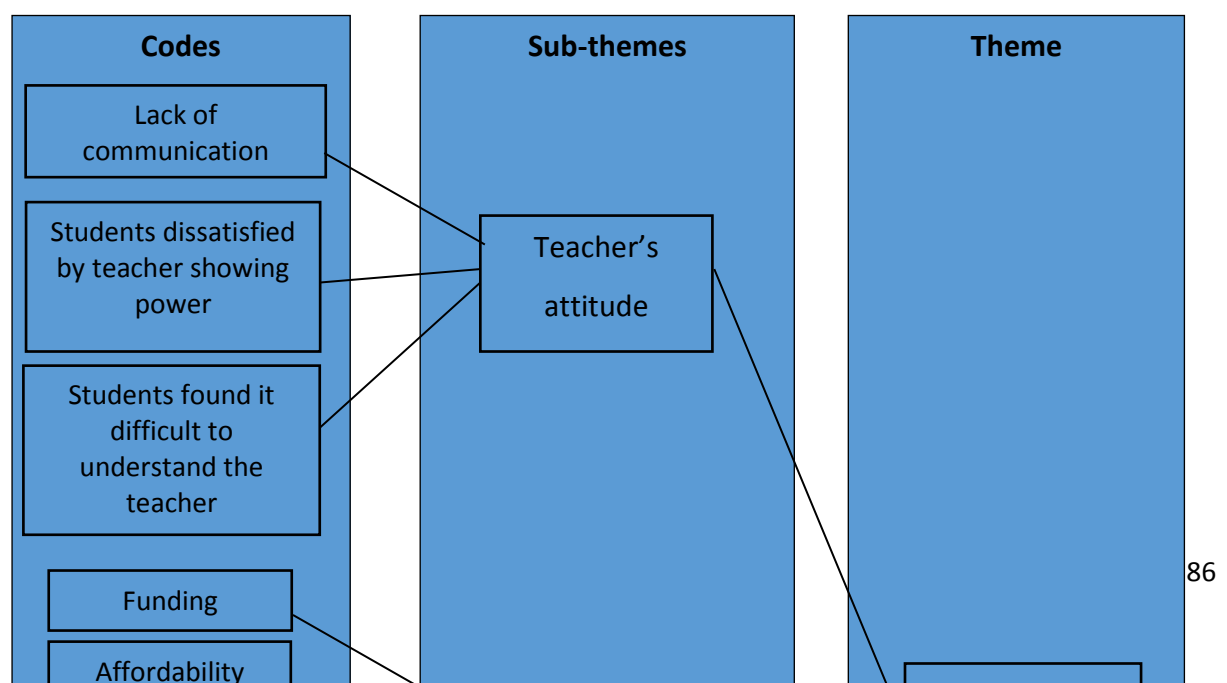


Figure 4.1: The codes used to generate theme 5 (England and Kuwait dataset) for the thematic analysis.

In phase 4, the themes are reviewed individually and holistically. Once this is finalised the themes are combined to form a thematic map (Aronson, 1994). This map shows the overall structure of the themes and how they interlink. For the present study, all the potential codes remained unchanged and were not discarded from phase 3; however, further sub-themes were created.

In phase 5 the researcher finalises the themes and subthemes. It is important not to over-exaggerate a theme as this can jeopardise its validity (Braun and Clark, 2006). The process and examples of the thematic analysis can be found in Appendix 6. Towards the end of the analytical procedure, some themes and subthemes were eliminated from the data. The reasons behind keeping and eliminating certain themes is explained in Chapter 6.

4.4.2.1 Framework of thematic analysis

A theoretical framework is an integral part of research and analysis, as it strengthens the argument and brings coherency in the findings (Denzin and Lincoln, 2005). For the thematic analysis, two theoretical frameworks were used: multimodality and critical pedagogy. Multimodality is the main framework as it complements the multimodal analysis used for the video data. This framework was used to identify aspects in the thematic analysis that relate to different semiotic methods of teaching and learning such as auditory, visual and tactile approaches. The learning and teaching environment was explored critically in this framework by analysing the materials, tools and resources mentioned by the participants. The multimodal lens can identify how teacher educators and student teachers integrate multimodality in their teaching and learning practices.

The thematic analysis required another framework, because the multimodal data mainly focused on modes, communication and general classroom setting, and less on the thoughts, opinions and perspectives of student teachers and teacher educators. The most suitable framework to understand the dynamics of the motivation and intentions behind the teacher's and students' perspective was the critical pedagogy framework. Critical pedagogy is an interpretative tool that helps gauge the cultural and pedagogical aspects of teaching and learning. Therefore, using a critical pedagogy and multimodality framework simultaneously allowed a finding to be analysed from the perspective of two analytical tools. For example, the teacher educators in England and Kuwait had different opinions on teaching styles, as the English teacher educator tended to be influenced by the student-centred approach, whereas the Kuwaiti teacher was inclined towards the teacher-centred approach. This difference between both teachers was best captured and understood using the critical pedagogy framework, because the researcher was able to examine the wider context while interpreting the interview data in the light of their cultural, political and historical context, which would have been difficult to analyse using the multimodal framework alone.

4.4.2.2 Thematic validity and reliability

With respect to thematic analysis, reliability and validity are often linked together and referred to as credibility, transferability, dependability, and conformability (Golafshani, 2003). These terms collectively have the aim of ensuring research findings are trustworthy and robust. It is important to show robustness in thematic analysis as the nature of the method is

susceptible to bias and subjectivity, which can distort findings (Campbell, 1996; Fereday and Muir-Cochrane, 2006). Credibility can be ensured through checking findings against raw data, triangulation and member checking (Flick, 2004).

Firstly, the stages of the thematic analysis are transparent, which makes it easier for the researcher to recheck the findings against the raw data. This was achieved through an audit trail so that each interview could be traced back to the different phases of the analysis. For example, the reader can visit phase 3 of the thematic analysis to formulate how phase 4 was achieved (Silverman, 2010).

Secondly, triangulation was applied in the present study through the integration of two different research methods. Combining findings from multimodal analysis and thematic analysis provides stronger evidence for the validity of findings. According to Bowcher (2012), combining a multimodal analysis with a thematic analysis highlights similar patterns in both data sets, which shows how similar aspects are represented visually and from a linguistic perspective. Research suggests that triangulation is a promising method for ensuring conformability in the research findings (Flick, 2004). Triangulation is a way to enrich knowledge about the phenomenon under study. For example in the present study, the multimodal analysis may reveal a problem with respect to a lack of resources available in the classroom, which can be explored further (enriching knowledge) in the interview data.

Finally, member checking was undertaken; the transcribed data and a copy of the analysis were sent back to the participants to verify whether the interpretations reflected the participants' original thoughts and opinions. This is an important step to ensure that the researcher has not included any bias or subjectivity whilst interpreting the findings from the raw data (Creswell and Miller, 2002). I emailed the transcriptions to all of the participants from England and Kuwait and the outcome was approved by the participants from both countries. The evidence can be seen in Appendix 2.

4.4.3 Multimodal analysis

For this study, a multimodal approach is appropriate, because I am interested in understanding the teaching and learning behaviour of teacher educators and student teachers with a focus on the use of technology. The differences between England and Kuwait under the criticality of a multimodal lens will reveal how culture, classroom design, teaching

material, language, history, gesture, gaze and religion contribute to the teaching approaches in both countries. Taking into account the strategies employed in multimodal research in existing literature, the present study will focus on key communicative modes as described in Chapter 2. Modes in multimodality analysis allow the researcher to theoretically investigate how information is transmitted through different channels such as visual, verbal and non-verbal communication (O'Halloran, 2004). The transcripts of the episodes from the video analysis of the present study were examined in relation to four key communicative modes, which were language, bodily movements, gaze, and object (Jewitt, 2003; 2008; 2012). Jewitt suggests that all of these modes assist in communication that goes beyond language. In the context of the present study, language is examined with respect to how teachers and students interact and in particular the kind of language used by the teacher to address the students. Through data collection and analysis I became aware that gesture did not cover all the elements I observed. My analysis found elements such as posture, gesture, action, interaction and facial expression to be recurring modes. Posture alongside gesture plays an important role in non-verbal communication; for example, a rigid posture implies the person is strict, whereas a relaxed posture makes the person appear more friendly, although this is subject to cultural differences (Jewitt, 2012). Therefore, in order to put the findings into a more suitable category, an umbrella term 'bodily movements' was assigned to these elements. Another change that the data analysis brought was the separation of action and object, which before were considered together. Kress and Van Leeuwen (2001) sees action and object as interrelated since an object such as teaching material initiates the relevant action and vice versa. Jewitt (2014) supports Kress's viewpoint and from a theoretical perspective claims that action and object are intertwined as object manipulates action. However, Jewitt further claims that object can also be studied in isolation from action, because object is central to the interaction between semiotic resources. In education it is worthwhile to examine how an object is used, for example a desk as a resource for teaching and learning. Therefore, in line with Jewitt's argument, for the present study the object is considered separate from action. Object is solely examined in relation to how it is used for a particular purpose such as teaching or learning.

Multimodality as introduced in Chapter 2 relates to pedagogy and therefore the most appropriate way to explore multimodal pedagogy is through multimodal analysis (Loveless,

2013). In this study it is essential to examine the video recording of the classrooms and the transcript of the interview data of England and Kuwait through the multimodal lens, because I am interested in discovering how teacher education in these countries uses different modalities while teaching and how this impacts on teaching and learning. I will highlight the similarities and differences between England and Kuwait with respect to multimodality and the cultural differences in the use of modalities. For example, do Kuwaiti teacher educators use the same bodily movements as teacher educators in England, and if not, why not?

4.4.3.1 The phases of multimodal analysis

The data collection method used for multimodal analysis was video recording. As suggested by the literature above, video recording is a popular method to analyse the classroom teaching discourse (Jewitt, 2012). The theoretical underpinning of video analysis, including its advantages and disadvantages, is explained above. However, in the context of the present study the practical advantage of video analysis was that it enabled me to explore the details of all the representations and modes of communication used with respect to pedagogy in relation to technology. Obviously, the video recording had shortcomings. In England I was given an old camera and the quality of the footage and audio was compromised in some parts of the video. In contrast, in Kuwait I had a better camera and the quality of the footage and audio was much clearer. Another limitation I experienced was that when the teacher was engaged in whole-class teaching both in England and Kuwait, I was unable to move around the classroom as it would disrupt the lesson and due to this only one angle of the class was recorded during this activity. However, I was able to overcome this limitation as soon as the practical part of the lesson began; I then began to move freely around the classroom while capturing all the students and teacher educators' activities.

Once the video data was collected it was subjected to macro and micro analytical phases before becoming meaningful and presentable data. Albers et al. (2013) state that multimodal analysis is complex and needs to go through certain phases in order to arrive at meaningful data. They outline the concept of macro- and micro-analysis in the field of multimodality, although this analysis is popular in other disciplines, such as sociology, as well. In multimodality a macro-analysis highlights the main concepts in a given event or document, whereas micro-analysis explores the minute details that build the dynamics of the modes.

Albers et al. (2013) suggest that it is up to the researcher whether micro-analysis or macro-analysis is carried out first. In the present study the macro-analysis was conducted first in order to divide the data into chunks. From the macro-analysis, the most appropriate segment of the data was selected, which was used to conduct micro-analysis. The criteria for selection of each phase are given in the following section, alongside the phases for the analytical process.

Phase 1: Macro-analysis

Macro-analysis is a review of all the factors that affect an event. In this part of the analysis I discuss everything that is visible and mention in a holistic way the possible relationships between each element that is observed in the event (Albers et al., 2013). Researchers also adopt macro-analysis, because it organises the data in a pattern that makes it easier to work within the following detailed phases of the analysis (Bhatia and Bremner, 2014). In the present study, the macro-analysis involved dividing each section of the video into ten minute slots, which I refer to as scenes. Initially, a descriptive analysis of each scene was conducted mapping the activities carried out and the dialogue that took place between the students and the teacher. The macro phase had a second level of more detailed analysis. This was still descriptive but considered details such as the language used, teaching material, class layout, colour, classroom décor, facial expressions and body language of the students and teachers. This detailed analysis enabled me to select the most appropriate scenes for the micro-analysis.

As a result of dividing the video data into ten minute slots, I identified 21 scenes for the lesson recorded in England and eight scenes for the lesson recorded in Kuwait (Appendix 5). This macro-analysis phase was crucial as it allowed me to understand the overview and purpose of each lesson in England and Kuwait. Moreover, by understanding the dynamics of each scene, I was better positioned to narrow down the analysis for the next phase. The detailed analysis of the macro phase was considered when selecting scenes to be examined in more depth in the micro phase. A scene – the recorded section used in the macro phase – is longer (approximately ten minutes) and describes the events related to teaching and learning, whereas an episode – used in the micro phase – is much more narrow (approximately five minutes) and succinctly focuses on a particular part of the lesson with the intention to explore

further in a wider context, such as looking in detail at the beginning of the lesson. In the micro phase the multimodal aspect related to the key communicative modes such as gesture, language, gaze and action were explored. The criteria for which episodes would be selected for the micro phase were:

- Indicated the lesson activities;
- Showed different use of modalities;
- Followed a sequential order exemplifying the beginning, middle and end of the lesson.

The purpose of the above criteria was to make sure the order of the episodes for the micro phase was similar in order to create a like-to-like comparison between the video footage from England and Kuwait.

Phase 2- Micro-analysis

Micro-analysis is a detailed analysis that studies the semiotic systems within an interaction (O'Halloran, 2004). To continue with the micro phase, four episodes were selected from the macro phase for each country in accordance with the criteria mentioned previously. I chose similar episodes from England and Kuwait for the purpose of a comparative analysis between the two countries. The main criterion was that both episodes from England and Kuwait were selected based on similar timings of the lesson and activities. The transcripts of the episodes were also examined in conjunction with four key communicative modes: language, bodily movements, gaze, and object (Jewitt, 2012). Focussing on these key communicative modes worked well as they allowed me to observe the differences and similarities between classrooms in England and Kuwait simultaneously.

Each episode is approximately five minutes long and records the teachers' and students' interaction, teaching materials, and activities undertaken. These episodes are derived from the relevant scene, which corresponds to the first phase of the multimodal analysis as mentioned above. Episodes 1 and 4 from England and Kuwait were chosen, because they show the most marked contrast between the English and Kuwaiti contexts. A brief explanation of the episodes has been given below in table 4.4. The table shows that in the lesson in England student teachers attempted various experiments, whereas in the Kuwait lesson the student teachers carried on with one exercise throughout the lesson.

Episodes	Description
Episode 1 (beginning of the lesson)	This episode shows how the teacher educators from England and Kuwait begin the lesson. The activities the teacher educators have planned for the student teachers are indicated in this episode.
Episode 2 (class exercise/experiment)	The first class activity is shown in England and Kuwait classroom. In England the focus is on experiments, whereas in Kuwait the student teachers are doing an exercise from the book
Episode 3 (class follow up exercise/data uploading)	This episode is an extension of episode 2. The student teachers in England continue to do class experiments but differently. However, the student teachers in Kuwait carry on completing the exercise from the textbook
Episode 4 (lesson closure)	This episode shows how both teacher educators, from England and Kuwait, are ending the lesson using different teaching approaches.

Table 4.4 Comparison between lessons in England and Kuwait.

The justification for choosing episode 1 relates to its content, which is the introduction to the lesson. Episode 4 shows a difference between Kuwait and England in the lesson closure.

The micro-analysis focuses on the key communicative modes that are visible in the video and the transcript of the episode and moments. A moment is a very short scene, lasting for approximately one minute. It focuses on a particular aspect, such as teaching style, use of technology or culture.

I also identified the particular kind of language used by the teacher to address the students; for example, did the teacher educators use formal or informal language with the students and how did the teacher and students interact? For bodily movement, related to non-verbal communication (gesture, posture, interaction and action), changes were observed and recorded; for example, did the teacher use open or closed body posture and how did the teacher move around the classroom? Gesture changes were observed momentarily (from

time to time) and recorded; for example, action focuses on how the teacher or student reacts to situations in the classroom. Action overlaps with other modes such as interaction, because actions – such as the teacher standing and talking in front of the class – initiated interaction between the teacher and the students. In relation to gaze, I analysed how eye contact was maintained, if at all, between the students and the teachers and I focused on cultural differences. Lastly, I focused on the objects that were used by the teachers and the students in the classroom; for example, how did the teacher make use of the desk in his classroom? I also looked at the classroom layout and the types of technologies used in the lesson.

Micro-analysis has limitations in relation to the present analysis. The main limitation is the large amount of analysis possible in proportion to the short time frame. The problem I faced was that micro-analysis presents a significant amount of detail in a very short time, which made it difficult to analyse the complete data. The multimodal analysis amounts to a lot of data; therefore, certain episodes and moments were selected. A rationalisation of this selection process is given in Chapter 5. Examples of the analytical process are given in Appendix 5.

4.4.3.2 Multimodal reliability and validity

In multimodal analysis, validity is ensured through an accurate representation of the data collected for analysis, reflecting a classic definition of validity (Silverman, 2010). For the present study, the main mode of data collection was video recordings.

With respect to validity, a continuous debate on two aspects of video analysis is found in the literature. The first is the ability of the camera to induce ‘demand characteristics’ in the participants (Marique and Becker, 2013). This term refers to behavioural changes that occur when people are observed by a researcher (McCambridge et al., 2012). Secondly, the remediation of the events in the video can be an issue (Marique and Becker, 2013). Remediation here refers to how the researcher selects and compiles the information. This remediation is determined by two factors: social and technical. The social factor is how the researcher uses the camera to record the event; for example, only a certain part of the event is recorded, whilst the remaining parts are missed intentionally or unintentionally, leaving the recorded data incomplete and biased. The technical factor is how much of the event the

camera lens can cover and record; for example, due to the limited capacity of the video recorder some of the participants may automatically be excluded from the scene or event.

Qualitative researchers using video recording may believe that they are replicating the event, because they are recording the exact reality. However, Lomax and Casey (1998) believe that replication of an event can only be partially possible, because the participants are influenced by the camera, which can potentially affect the validity of the findings. I recorded a typical lesson for England and Kuwait. In order to minimise distortion, I first visited each classroom without the camera just to observe a lesson and orientate myself. This helped me to determine if the participants were affected by the camera or not. In accordance with Jewitt (2012) I believe this to be a safe way to ensure the trustworthiness of the findings.

I also had a personal journal in which I noted observations from recording the lesson to ensure that personal bias was not a barrier to producing high quality data (Lomax and Casey, 1998). Reflecting through the journal enabled me to unpick my thoughts, bias and assumptions. In the journal I noted down the features of a typical lesson in both England and Kuwait. This exercise enabled me to recognise any demand characteristics portrayed by the participants and the researcher (Finlay and Gough, 2008). As I had previously visited the classroom I was familiar with the student teachers' behaviour alongside the teacher educator, and during the video recording their behaviour was not different from that during the lesson I attended previously. Although no research is flawless and demand characteristics can be expected due to the nature of human behaviour, a researcher can only take measures to minimise the risk of bias (Finlay and Gough, 2008).

In qualitative research, reliability can refer to the credibility and conformability of the research (Golafshani, 2003); for example, whether the researcher can persuade the audience that the research findings are of any importance (Lincoln and Guba, 1985). One of the most common ways of addressing reliability in qualitative research is to carry out an inquiry audit, which makes the process of research transparent to show neutrality (Hoepfl, 1997). An inquiry audit involves recording and saving each stage of the analysis process in order to evaluate the steps taken between each stage. Accordingly, I separated each phase of analysis and presented the findings in a systematic order. Examples of some of the phases can be found in Appendix 5.

4.5 Ethical considerations

The nature of case studies demands extra attention with respect to ethical issues. In the context of educational research, many case studies are sponsored or funded by a third party that may have power over the research and its findings. Research suggests that publication bias is common in research financed by third parties (Dubben and Beck-Bornholdt, 2005). In order to avoid any publication or personal bias I have shown all the analytical steps in Appendices 5 and 6 to show that I was not biased towards the findings from England or Kuwait. According to Reynolds (2000) publication bias is best eliminated if all the findings whether positive or negative, are reported in the main research body or in an appendix.

Ethical guidelines are fundamental for the researcher and the institute as they provide rules and regulations to protect both the research and the participants (Gregory, 2003). Ethical approval of the present research was obtained from the Manchester Metropolitan University's ethics committee (see Appendix 1). Similarly, a letter of approval was accessed from the Public Authority for Applied Education and Training (PAAET) in Kuwait (see Appendix 1). This letter concerned obtaining consent from PAAET to carry out the research. As I was sponsored by this institute, consent was easily approved. Nonetheless, PAAET is a known platform for carrying out and sponsoring research, and therefore getting approval from PAAET was expected.

Regarding the participants who were video recorded, the teacher educators were approached in both England and Kuwait in order to gain access to their classrooms to record the lesson. Once the teacher educators agreed that video recording a lesson could take place, I emailed the teacher educator and arranged a meeting during which I toured the classroom and observed a lesson without video recording. Following this, a subsequent visit was arranged for the video recording of a lesson. The type of lesson was negotiated with the teacher education as I intended to record an ICT lesson, because this would link to my interest in technology-enhanced learning. Written consent was obtained from the teacher educators in England and Kuwait via email. Verbal consent was obtained from the student teachers by the teacher educators as they acted as a gate keeper to the student teachers and all details were

discussed with them prior to the video recording. This procedure was applied in both England and Kuwait.

Regarding the participants who were interviewed in England and Kuwait, each participant was given a consent form, which they were required to sign before participating (see Appendix 1a). The consent form also contained an information sheet for the participants, which explained the purpose of the research and what it involved. The information sheet explained all main points and therefore no deception was used in the study. The participants were made aware of their right to withdraw from the study during and after the data collection procedure. Although the participants' real names were taken for the interview, pseudonyms were used in the analysis to protect their identity. All the participants were debriefed at the end about the study and I shared my email address in case the participants wanted to withdraw or view the findings. I further ensured that I followed the British Educational Research Association guidelines, such as guaranteeing the right to withdraw, openness and privacy (BERA, 2011). By following these guidelines I intended to protect myself and my participants.

4.6 Summary

This chapter has outlined the theoretical aspects of the research design and research methods chosen for the present study. I have argued that a comparative case study method, within the tradition of qualitative research, is most appropriate when the aim of the research is to carry out an in-depth investigation and compare two cases in order to find similarities and differences.

The comparison of teacher education pedagogy in Kuwait and England is examined through the lens of multimodality. In addition, I use critical pedagogy as an internal interpretative tool to reveal how culture, politics, history and religion have shaped the English and Kuwaiti teacher education systems. The data obtained from the video recordings and interviews will show the differences in the views and practice of teacher educators and student teachers in England and Kuwait. These findings will be analysed critically in the following chapters.

The most important threat to the credibility of thematic analysis is subjectivity and lack of transparency. However, in the present study I have recognised these threats and attempted

to minimise them by following measures discussed in this chapter. Researchers in the field of qualitative research claim that no research is perfect; however, if certain procedures are put into place rigour and robustness can be promised (Fereday and Muir-Cochrane, 2006).

Having described and justified what I did to address my research questions I now turn to the first of two data analysis chapters, and present my findings from the multimodal analysis.

Chapter 5: Comparative multimodal analysis

This chapter presents the findings from the multimodal analysis of the video recordings of the lessons in England and Kuwait. The dataset consists of two episodes and one moment, which were analysed in relation to the key communicative modes (language, bodily movements, gaze and object) that were derived from the literature presented (Chapter 2). A scene belongs to the macro phase of analysis, and is descriptive and longer in duration. An episode on the other hand is much narrower and focuses on certain elements of the lesson. For the present analysis phase, the beginning of the lesson and lesson closure are selected to mark the contrast between the two countries. The analysis also identifies a moment that focuses on minute details occurring within an episode that show cultural differences between Kuwait and England (for more details refer to Chapter 4). The analysis of each episode and the moment pays equal attention to the multimodal key communicative modes followed by an individual discussion. The chapter ends with a conclusion that draws on the main elements from the analysis of each piece of data to examine the interaction between the modes.

The teachers in Kuwait and England were both male. The subject taught was information and communication technology (ICT) in both countries. The focus of the class was similar in both countries as the intended learning outcome was to equip the students with IT skills necessary for their teaching later on. The learning outcome of the lesson in England was to familiarise student teachers with data handling using various software to learn how to use technology when conducting experiments for subjects such as science and maths. In Kuwait, the learning outcome was to equip student teachers with basic Microsoft Office skills, such as laying out a page. The curriculum and the syllabus were different in the two countries. The present study therefore needs to examine two different syllabi and policies, which require alternative pedagogies and teaching styles (as discussed in Chapter 3).

In Kuwait, the teacher only taught the students basic operations of Microsoft Word, which implies that in school children also use basic technology in their learning. This is further reinforced in Chapter 3 as the IT curriculum in Kuwait comprises simple and basic Microsoft, Excel and PowerPoint skills. The teacher in Kuwait did not relate the task to the students' future practice, as there was no discussion of how learning Microsoft Word relates to children in schools. On the other hand, the teacher in England implicitly and explicitly related the

content of the lesson to students' practice. Furthermore, the epistemological nature of the class was different in Kuwait and England. In Kuwait, the teacher transferred knowledge without conceptualising it through class discussion, whereas in England, the teacher referred through class discussion to how children acquire knowledge and the role of technology in that learning process.

5.1 Multimodal analysis: overview of England and Kuwait

As explained in Chapters 2 and 3, multimodality is closely observed in a classroom setting and relates to how the teacher educators in England and Kuwait use language and gesture; firstly, to represent information, and secondly, to draw the student teachers' attention to parts of the lesson. The theoretical reasoning behind using multimodality analysis for the present study has been discussed in Chapter 4 on methodology. The purpose of this chapter is to analyse the multiple modes of teaching using multimodal analysis. In this section existing literature on the practical use and scope of multimodality in education is discussed. The literature draws upon multimodality with respect to pedagogy and technology. Multimodality and technology are particularly relevant to the present study, because the multiple modes of teaching are closely linked to technology. For example, teachers in England and Kuwait may use different technology-based software or iPads to teach, which falls under the categories of visual or aural teaching, hence representing multiple modes in their teaching.

In the literature on multimodality analysis, different modes are analysed in the discourse of the classroom, such as language and gestures. In line with the literature, key communicative modes were selected to analyse the multimodal data: language, bodily movements, gaze, and object. These modes are grouped together, because they are all related and work in parallel to each other in making meaning. For example, a straight posture and a facial expression of a teacher during teaching may signal to students that they need to pay attention. However, in the present study differences in the interpretation of modes are likely to exist between Kuwait and England, due to cultural differences outlined in Chapter 3.

The details of the multimodality analysis and the phases involved during this procedure are explained in Chapter 4 on methodology.

5.2 Contextual information about the lessons in England and Kuwait

In both of the lessons analysed, a teacher educator specialised in computing taught general technology.

The objective of the lesson in England was to introduce student teachers to different types of data handling. Data handling involves translating data into meaningful content through different techniques. The teacher educator began the lesson by briefly explaining data handling and then guided the student teachers towards the experiments they had to conduct on data handling, which were based on science, problem solving and maths. All of the experiments related to primary level education; the lesson was thus practical and involved the student teachers working in groups while conducting the different experiments that had been set up.

The objective of the lesson in Kuwait was to carry on from the previous lesson on basic skills of Microsoft Office. During the lesson the teacher used the Teacher OP program to connect his computer to the students' computers to show them the basic commands of Microsoft Office. The students individually completed the exercise from the textbook as an assessment during the lesson.

5.3 Selection of the episodes and moments for analysis

The multimodal data was completed in the form of four episodes and five moments from the video analyses of England and Kuwait. However, for the final write-up of the results only two episodes (episode 1 and 4) and moment 2 (technology use in teacher education) were used, because they showed different parts of the lesson that contrasted with each other and produced interesting and non-repetitive results (a full overview of the selected episodes and moment is given in section 5.5 of this chapter). Episode 1 (which shows the beginning of the lesson) and episode 4 (which highlights lesson closure) were selected. Both of the episodes from England and Kuwait showed how teacher educators used different teaching styles to begin and end the lesson. Episodes 2 and 3 were not used as part of the data (although examples of the analysis process are given in Appendix 5 and 6), because they were repetitive

in nature since the teacher educators and student teachers in England and Kuwait were conducting similar activities for a considerable period of time.

In the moments, it was necessary to exhibit elements that were not already shown in the episodes. Therefore, moment 2 was selected, which focused on technology as well as style of teaching used by the teacher educators; two elements that are central to the present study. Moments that were eliminated from the main thesis showed aspects such as reflection, and a comparison of adult education in England and Kuwait. Although the eliminated moments showed different aspects of Kuwait and England, the data itself was not strong enough to represent an argument in the later discussion chapters. However their content is described briefly here as it does appear to overlap with the data used in the thesis.

The findings from episodes 2 (class exercise/experiment) and 3 (class follow-up exercise/data uploading) suggest that the teachers in England and Kuwait have different teaching and learning styles. In England, the teacher endorsed an active learning style including discussion and collaboration. The teacher in England allowed the students to decide where they would like to conduct the experiment, either in the classroom or the corridor. However, in Kuwait the students and the teacher seemed introvert as they were sitting in a defensive manner and not communicating at all. In the Kuwaiti lesson, the teacher did not model any of the learning styles observed in the lesson in England; for example, he did not allow the students to make any decisions themselves. Kuwait episodes 2 and 3 show the teacher providing instruction on the same exercise; he does not introduce the students to more content. The teacher in Kuwait did not relate the content covered to the practical setting of teaching children. This could be because of the curriculum.

The analysis of moments 1, 3, 4 and 5 indicates similar differences between Kuwait and England. Moment 1 (andragogy vs. pedagogy) indicated that the teacher in England taught student teachers as adults and actually taught them how to teach through modelling. In contrast, in Kuwait the teacher used a teacher-centred approach, to bring order to the classroom.

Moment 3 (teaching style) was similar to moment 1, as it highlighted that the teacher in England used collaborative methods for teaching and learning, whereas the teacher in Kuwait used an instruction-based teaching method that exemplified the teacher-centred approach.

Moment 4 (attitude) focused on how students in the class worked and the relationship between the teacher and students. In Kuwait, throughout the lesson the students did not communicate with each other, not even once. In England the students worked together in groups and appeared to be comfortable, as their bodily movements and especially posture were open and the students maintained eye contact with each other to show they were listening.

Finally, moment 5 (reflection) observed how teachers reflected on their personal experience of teaching in schools, which came up while teaching the students. Reflective practice is considered an important tool for educators for the purpose of developing and growing professionally, to be used in conjunction with their teaching (Biggs, 2011). The teacher in England was intentionally guiding the students towards reflective practice and directed the students in letting them decide where they could have gone wrong in the work. For example, the teacher asked the students to think about what they could have done differently in the experiment. This shows that the teacher allowed the students to reflect on their working practices. In contrast, in Kuwait the teacher involved no reflective practice in his teaching, which was based on direct instructions only.

5.4 Overview of the selected episodes and moment

Episode 1: Beginning of the lesson

England: timing: 5.00 – 10.00 minutes

The lesson starts with the teacher educator explaining the schedule of the lesson to student teachers as shown in figure 5.1. The teacher in this figure is leaning forward towards the students. The teacher educator asks the student teachers to pay their attention to the projection screen as demonstrated in figure 5.2 where all the experiments are graphically displayed and attached to various monitors.



Figure 5.1: The teacher educator leans towards the students and informs them about the lesson schedule.

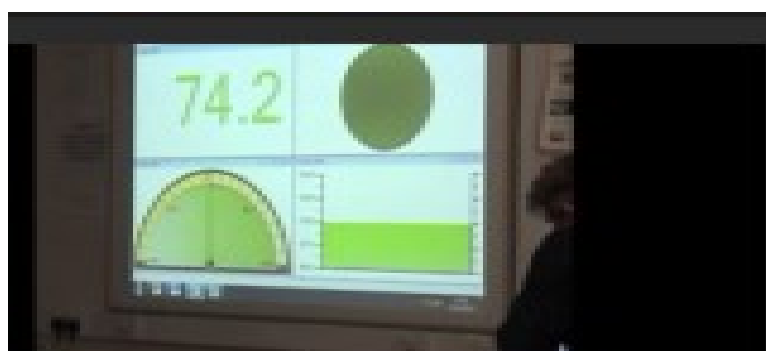


Figure 5.2: The teacher educator showing the student teachers the different types of experiments that they will be conducting during the lesson.

Kuwait: timing 0.00 – 3.00 minutes

The lesson starts with the teacher educator standing behind the desk and calling all students to pay attention to the instruction he is giving as shown in figure 5.3. The teacher straightforwardly asks the student teachers to concentrate on the exercise given in the text book. The teacher then goes around the class, as shown in figure 5.4, checking work and identifying if any student has made a mistake or not.



Figure 5.3: Shows the teacher educator to be standing behind the desk and giving instructions to student teachers.



Figure 5.4: The teacher educator approaching the students in order to check their work.

Episode 4: Lesson closure

England: timing: 45.00 – 48.00 minutes

The lesson finishes with student teachers completing the last experiment of the lesson. The students in figure 5.5 are recording the results of the experiment. The teacher educator in figure 5.6 stops the student teacher, because he feels a particular question in the recording sheet may be difficult to answer. The teacher then explains how to answer the question on the projection screen and all students copied him on their computer screens as shown in figure 5.6. Towards the end of the lesson the teacher calls the students towards the centre of the classroom to go over the answers together and allows any student to ask any further question about what was covered in the lesson as shown in figure 5.7.

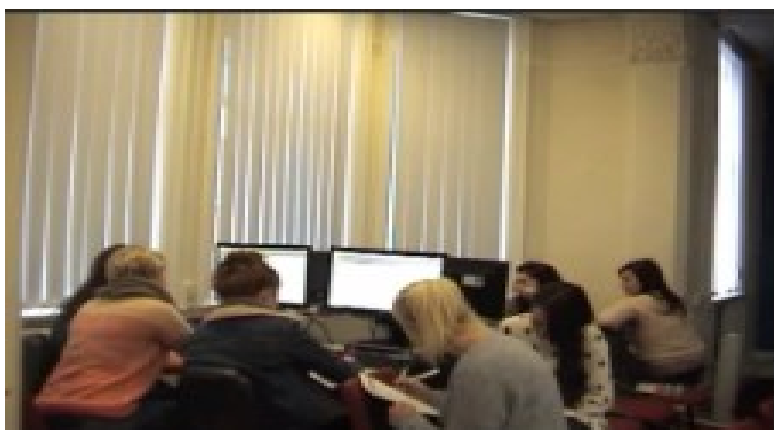


Figure 5.5: Showing students in the English class to be working in groups.

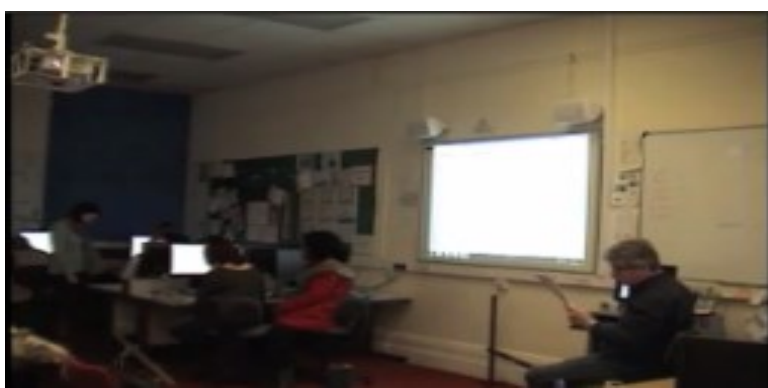


Figure 5.6: Showing the teacher educator in the English lesson demonstrating one of the features of the software called Oscar.



Figure 5.7: Shows that the student teachers have gathered back at the centre of the class to discuss the group activity.

Kuwait: timing: 0.00 – 16.00 minutes

The lesson finishes with the teacher educator going around the class as shown in figure 5.8, checking the progress of the exercise that the students have been assigned to finish in the lesson. The teacher identifies one student who has written an incorrect answer and asks her to rewrite the answer correctly. This is shown in figure 5.9 where the teacher is standing behind the student and pointing at her computer screen. By the end of the lesson the students still continue to complete the exercise as shown in figure 5.10.



Figure 5.8: The teacher educator going around the classroom and checking the progress of each student teacher's work.



Figure 5.9: The teacher educator telling a student teacher to redo one of the questions in the exercise.

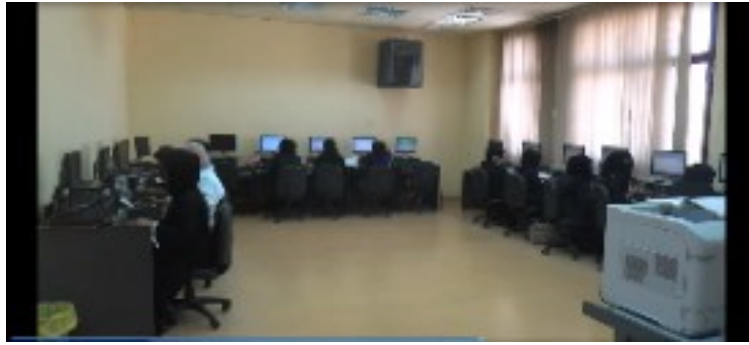


Figure 5.10: Shows the student teachers working on the exercise towards the end of the lesson.

Benefit of technology in teaching: Moment

This moment explored the technology as well as the teaching style used by the teachers in Kuwait and England with respect to teaching and learning. This moment indicates the integration of technology to support teaching and engage students in class activity (see figures 5.11 and 5.12).



Figure 5.11: The teacher educator in England's data showing student teachers how to use the Oscar software for branching data.



Figure 5.12: The teacher educator in Kuwait telling the students to pay attention to their screens as he has connected his computer to theirs, using the Teacher OP program.

At the beginning of the analysis of each piece of data, a part of its transcript will be given that presents four elements, called key communicative modes, which are analysed separately, as mentioned above. Finally, the analysis of each episode and the moment will finish with a conclusion that discusses the similarities and differences between England and Kuwait.

The italic text in the transcript represents speech, whereas the non-italic text shows the explanation of the modes. Transcripts are colour coded according to the key communicative modes, and a colour key has been provided below:

- Language
- Gaze
- Bodily movements
- Object

5.5 Episode 1: Beginning of the lesson

This episode shows how both teachers introduced the lesson and teaching materials, and how the teachers prepared the students for the intended learning outcomes. The purpose of the lesson in the English video was to introduce the students to different techniques in data handling (see box 1 for England's transcript). The teacher planned several experiments for the students to do in groups followed by worksheets. The worksheets had instructions for the experiments alongside questions that the students had to answer by completing the experiment. This particular structure of experiments and worksheets was designed to give

students insight into the different experiments, before creating their own teaching materials, which would later be assessed. In Kuwait the purpose of the lesson was to introduce the students to the basic functions of Microsoft Word, such as page layout, margins, inserting text, changing font colours, writing texts and spacing, followed by an exercise from the accompanying textbook (see box 2 for Kuwait's transcript).

The teacher claps his hands.

Teacher: Did you make plenty good use of iPads?

Students: Yes. The teacher moves both his arms forward in a circular fashion downwards.

Teacher: Would you say it was more for your professional use? The teacher is standing at one corner of the classroom and has direct eye contact with all of the students; the students are also directly looking at him.

Students: Yeah.

Teacher: Yeah. The teacher moves his hand in a circular way pointing at the students

Teacher: Did you actually use the iPads; have you actually got iPads in your schools?

Students: No...Yes....The teacher looks at the students in the front row and then gazes at the back rows as well.

Teacher: Hands up if you have. Teacher mimics the action and raises his one hand up in the air.

(students who have iPads raise hands up)

Teacher: It's sounding more and more isn't... teacher moves towards front of the class and rubs his hands together anyway I have got to move on because looks at the classroom collectively today is kind of normal action packed...so not the teacher spreads his hands towards the student much time and so much to do in these two hours. Anyone done any data handling with their children?

Students: No.

Teacher: No data handling... Nobody made any graphs? The teacher has direct eye contact with the student who is answering his question.

Student: Yes, on the computer... we did dogs and goldfish...

Teacher: That's it, well there are about five types of data handling programs that we use and we are going to try to fit them all in somehow; one more thing though.

The teacher points to the work station where all the experiments for data handling are put and ready for the students to use.

Teacher: ...HAPPY NEW YEAR

The students jump as the teacher grasps their attention with a loud roar of "happy new year"; the teacher puts his arms wide across and lifts them a little and with one hand he makes a gesture of an airplane going up in speed. The teacher is looking at the students as well as the projection screen and keeps switching between the two.

The students get excited and they laugh loudly while looking at the teacher and the projection screen in surprise.

Teacher: It went like that, didn't it

Box 1: England transcript (timing video 5.00 – 8.00 minutes) of the teacher education lesson in England.

Teacher: What's the tool used to change the orientation of the page? What do you expect the answer to be?

The teacher is pacing from one side to another in the middle of the classroom and pointing towards the computers.

The teacher is looking around the classroom and is not fixing his gaze.

Students: Page layout.

The teacher stands in front of the class while emphasising paying attention to the computers using his hands.

The teacher looks across the computer screens.

The teacher is using his hands.

Teacher: Yes, the page layout tool; now go to the page layout tool, and click on Page Layout above.

The teacher fixes his gaze on one of the sides of the classroom and is looking across three to four computer screens.

Teacher: Under Page Layout it shows "commands"; did you find the tool?

Students: Yes.

The teacher again moves slowly but pauses again and opens his arms like a ruler to demonstrate the point he is making.

Pauses and allows the students to complete action.

The teacher is looking around the classroom.

Teacher: One of these commands, what is it? Command "direction". Click on the direction. Now choose horizontal direction.

The teacher stands in a straight position and again with his arms he is making a ruler.

The teacher fixes his gaze on the computer screen for about three to four seconds again.

Teacher: Did you notice the change in the ruler above or in the form of the page, from 1 cm to 15 cm?

The page now has become from 1 cm to how much?

Students: 24 cm.

Teacher: Yes, to 24 cm; this means the page has become "crosswise" the width.

The teacher walks up to one of the student's computers and points at the screen to show something.

Making use of the computer screen to demonstrate.

The teacher is looking at the computer screen.

Teacher: Note that down the page is a percentage.

Width ratio makes it 95%.

Teacher raises his hands up and down and repeats

The teacher walks up to the other side of the class and points to the computer

The teacher is going towards the computer.

A student comes in late to the classroom and without making any eye contact with the student the teacher with his hands tells her to sit down.

Box 2: Kuwait transcript (timing video 0:00 – 1.20 minutes) shows that the teacher educator appears to only instruct the student instead of forming an interaction.

5.5.1 Language

In the Kuwaiti transcript it is evident that the teacher used action-based language, because he told the students how to complete the exercise in Microsoft Office. The language the teacher used was formal (for example, the teacher starts the lesson by formally asking

students a question) and perhaps followed an instructive pedagogical discourse. The teacher appeared to be using the teacher-centred approach, as he expected the students to pay attention to him at all times in order to receive information about the task they were performing in the class. However, in England the teacher did not begin the conversation through a lecture; rather, he initiated a conversation with the students. The teacher, in a light tone, informally asked the students how their week had been and whether they utilised the iPads and how they found them. It appeared that from the beginning of the lesson the teacher followed a certain pedagogical discourse, which was student-centred, to form an interaction with the students. This pedagogical approach revolved around the students rather than the teacher. The teacher in this episode conducted phatic communication, or small talk, which meant that the conversation began on a lighter note before going to the main purpose of the communication in order to create a level of comfort (Younie et al., 2009). The teacher in England adopted an informal approach. For example in the transcript when the teacher shouted “Happy New Year” (see box 1), he said it in an informal way and laughed with the students in order to show his friendliness. Another perspective could be that the teacher educator in England is friendly on purpose and he used his words to reflect his friendly nature. In contrast, the teacher in Kuwait had a more formal manner, which was exhibited through his speech. In Kuwait, the teacher began with a question (*What’s the tool used to change the orientation of the page?*) that indirectly informed all students they had to pay attention as his attitude made it clear that students should only concentrate on what he was saying. The answer was straightforward, but the teacher deliberately gave them time to think. The teacher guided the students to follow him and he used words like “did you note” or “did you notice” in between, just to make sure they understood. However, the teacher in England took a different approach and introduced the lesson topic to the students through demonstration. The teacher told the students about the five types of data handling and informed them that people need to know about them today in the modern world. The teacher repeated himself, emphasising that they had a lot to cover in the lesson and hence prepared the students’ minds for the work ahead. He then paused and allowed the students to get distracted by talking to each other before he startled them with the loud greeting of “Happy New Year”. However, before he did that he said “one more thing”, but in a casual soft tone, suggesting something not that exciting, and then took them by surprise. The teacher did this to show the students

how the sound experiment works. Then the teacher told the students to look at the projection screen in order to see how the sound sensor increased with a loud noise.

The teacher related this experiment to teaching children, which shows he accounted for the training needs of student teachers. At the beginning of the lesson he asked the students if they knew of data handling and most of them said yes, because they had already used it in their placements. By asking if the students had come across data handling, he was relating what he was covering in the lesson to their experiences in the classroom. In doing so the teacher educator facilitated the student teachers to make links between theory and practice more readily.

5.5.2 Bodily movements

The teacher in Kuwait had a static body posture compared to the teacher in England. The teacher in Kuwait moved from side to side but at a slow pace and concentrated mostly on the task (a basic Microsoft Office exercise) that he had assigned to the students. In comparison, the teacher in England changed posture and employed gesture frequently. At the beginning of the lesson the teacher clapped his hands together, suggesting that it was time to start, which is common practice in English primary schools and so the teacher was modelling similar behaviour. The teacher also used gestures to initiate a conversation or retrieve an answer from a student; for example, to show that he wanted the students to raise their hands he raised his hand. Moreover, when the teacher demonstrated the sound experiment he used gestures to support his words. For example, to indicate that the speed indicator on the sensor went up when he said “Happy New Year”, he made his hand resemble an airplane, to suggest how fast the software can be. Then the teacher became a little more serious, as he proudly pointed towards the sensor connected to the experiment apparatus, while he said that this was one of the techniques of data handling software. He appeared proud, because he was implying that technology has been development extensively from the time he was a primary school teacher. He alternated between a closed and an open body posture but was mainly relaxed and kept leaning forward and backwards in order to draw the students’ attention towards the projection screen. This gesture clearly indicated to the students that what they were about to learn was serious and they needed to pay attention. The teacher’s gestures

and postures were exhibiting actions that appeared to form non-verbal interaction with the students. For example, the teacher acted out a loud noise in the hope that the students would imitate him. In comparison, the teacher in Kuwait used action-based language as mentioned above, with no gestural action. With respect to action, the Kuwaiti teacher used his computer and textbook (objects) to conduct the basic Microsoft Office operating skills exercise.

5.5.3 Gaze

The Kuwaiti teacher looked over the classroom but did not make eye contact, instead generally glancing at the students' work. The teacher did not look at any particular student and just glanced over their computers. The teacher also looked straight ahead at certain points, especially at the beginning of this episode. Interestingly, when one of the students arrived, the teacher did not even make eye contact with her and indicated by gesturing with his hand she should take a seat. In contrast, the teacher in England looked at the students directly. Although the teacher moved, his eyes were fixed on the students to maintain eye contact. As the teacher moved towards the front of the classroom, he looked at the front row and then gazed at the back row to show that he was giving his attention to all. However, when one of the students answered his question he only looked at her. This shows that he respected and appreciated the student's efforts to respond to him.

5.5.4 Object

In England the teacher used the data logging software as the main object for this episode. The teacher used sound sensor software and a projection screen to show the sound experiment to the students. In Kuwait the teacher used his computer while the students focused on their computers and their textbooks.

5.5.5 Discussion

This episode shows more differences than similarities between England and Kuwait. Marking the key communicative modes made it easier to clearly distinguish these differences. Starting with language, the teacher in England used quite informal language with the students, whereas in Kuwait the teacher used only formal language. Both the teachers had a different

pedagogical style. The teacher in England followed a student-centred approach combined with some teacher-centred pedagogy, whereas the teacher in Kuwait utilised a teacher-centred pedagogy only. The teacher in England was directing the students during the lesson at all times but in a friendlier manner, as he was using colloquialisms and contractions. For example, the teacher said: "It went like that, didn't it?" This indicates that the teacher was speaking to the students informally in order to grab their attention, as he was probably aware of the contemporary language style used amongst the students. In contrast, Kuwaiti teachers are authoritarian figures and should be treated formally, as observed through the language exhibited in the transcript above. The teacher did not communicate with the students; rather, he only concentrated on delivering the content to the students and portrayed formality through his bodily movements by maintaining a consistent distance from the students. Although it would be interesting to see if the teacher would have maintained the same bodily movements if the students had been males, this is beyond the scope of this study. The teacher sequentially moved from one instruction to the other without allowing any time for discussion, representing teacher-centred pedagogy. The reasoning behind this stems from culture. In England, teacher educators are considered to be mentors rather than authoritarian figures. The analysis of bodily movement reveals this difference between the two countries. The teacher in Kuwait had a closed body posture and moved around rigidly, preferring to stand in one place and lecture

The teacher in England used high-tech teaching materials relevant to the topic he was teaching (data handling), whereas the teacher in Kuwait taught students the basic skills of how to operate Microsoft Office. Moreover, the teacher in Kuwait used Microsoft Office on Windows 2003, which suggests that more up-to-date technology has not yet reached the university in Kuwait. This difference between England and Kuwait could be attributed to the development of the curriculum, because in England the students were already familiar with the technology used by the teacher through their placement experiences, which were an essential part of their training. Conversely, the teacher in Kuwait used old material due to the curriculum being outdated in comparison to the latest developments in technology and pedagogy.

With regards to gaze, in England the teacher maintained eye contact with all of the students, indicating that he was listening, and he expected the students to do the same. However, in

Kuwait the teacher did not gaze at the students at all. This is the result of cultural differences. Kuwait is an Islamic country where it is found religiously rude and impolite for a man to stare or gaze at a woman, and the students were all female and the teacher was male. Similarly, in Kuwait it is considered rude for a student to gaze at the teacher and lowering the gaze is a sign of respect and gratitude, whereas in England it is considered rude not to make eye contact as it indicates a lack of interest and respect (Akechi et al., 2013).

In conclusion, the practices of the teachers in England and Kuwait found in **episode 1 (beginning of the lesson)** were indeed different. However, some of these differences, such as gaze and bodily movement, stem from cultural and religious influences. There are certain aspects such as engagement and classroom interaction that were clearly incorporated to a greater extent in England than in Kuwait. The teaching material used in England was more advanced and up-to-date, while in Kuwait the use of technology in teacher education is limited. The students in England go on placements and therefore the teacher in England was able to connect theory to practice. However, in Kuwait the teacher did not relate any of his teaching to children, perhaps due to the fact that there is no formal placement for student teachers.

5.6 Episode 4: Lesson closure

This episode captures lesson closure in England and Kuwait. The episode exhibits how the teachers in England (see box 3 for England transcript) and Kuwait (see box 4 for Kuwait transcript) finish the lesson, highlighting the differences.

Teacher: Now how many people are close to the scatter graph question?

All the students look towards the teacher.

Students working in groups of fives and fours and completing the exercise...they are communicating with each other about the content. They are whispering to each other about what to click and what to write down on the answer sheet.

Students are giggling, whispering to each other, leaning over each other. Some are sitting whilst some are standing.

All the students stop and look at the teacher.

Teacher: Right folks, can you stop for a moment where you are, whatever question you are on, stop.

The teacher makes eye contact with the students then looks down at the work sheet. I'm looking at question 10 and it says, I mean this is a more of a key stage 2 question, I'll be honest. Generally all the tallest people are the heaviest so we need to graph two lots of data so I have

gone into graphs...which of those graphs do you think I need? I got two lots of data. Which of those graphs what do you think?

Student: The line graph.

The teacher presses his lips together and makes eye contact with the student.

Teacher: Two lots of data...line graph might work, but if you are graphing height against weight...

Student: Scatter graph

The teacher makes eye contact with the students and moves his chair a little forward and then the teacher makes eye contact with the rest of the class.

Teacher: OK, now I think you can answer this question. Now just in case you can't, go to graphs, scatter graph statistical lines, best fit, now I really think you can answer this question *while you're at it why don't you print-screen it into the Word program and save it as you haven't done scatter graph today.*

The teacher gets up whilst pointing to the screen and moves towards the groups again.

The teacher keeps pointing to the *projection screen* as the main object for the present experiment the students are carrying out.

The students are working together and looking at each other and giggling.

Teacher: Yes, log off now once you've done those so we can go through the answer 7 so we have enough time to go over the answers.

The students start to log off and sit down back at their places

Teacher: OK folks, I am sure you want to know the answers, don't you? Of course you do...save your documents that you have been building all afternoon. Save it in your H drive or *memory stick*, ok then.

The teacher stands in the middle of the class with the *answer sheet*, moves forward a little makes eye contact and reads the first question out.

Teacher: Right, who is the tallest in our survey?

Students: Julia.

Teacher: Julia.

Box 3: England transcript (timing video 114.00 – 119.00 minutes) indicating the lesson closure activity.

The teacher stands and talks to one student but does not make eye contact with her.

Teacher: Alright.

The teacher goes to his desk and reads from *the book*.

Teacher: In terms of symbols, where can we find this tool?

Student: From the insert symbol.

All the students look towards the teacher for the first time.

Teacher: Yes, from the insert symbol. You can find more symbols from this option and determine the symbol needed from the symbol list. And then insert the symbol in your exercise.

The students look back to their screens whilst the teacher is using the computer to demonstrate

Teacher: Of course, when you insert the symbol you can coordinate the symbol as if it's a standard text, firstly highlight the symbol and you can change the size or change the colour from the colour list or change the shape of the symbol (from symbol or equation) or change it to bold or italic, in this form as you see I'm demonstrating this on your screen in front of you.

Teacher: What are you doing? Do what is written in the book...I will cut two marks if you do this. (The teacher has asked the students to pay attention and complete the exercise on time otherwise he will cut two marks of the whole mark for the piece of work they are doing).

Teacher: Do you have any questions?

Some students are putting their USB sticks in their bags after saving the files and leaving the class

Teacher: Quickly, speed.

Teacher: This exercise is very important. Possibly, the exam will include this exercise in the form of vertical or horizontal layout. Get well prepared for this exercise.

The teacher is behind his desk, then starts to move away from the desk and walks towards the centre of the classroom.

Teacher: Okay did you finish? After five minutes who will not finish I will cut two marks.

Teacher: All of you knew the save tool?

Teacher: Click on "save" from "office" option, then click on "my computer" then click on (removable flash), then write the name of the file, please all of you write "exercise 49" and before you leave the classroom close the exercise window and close the file.

The teacher points to the student and leans slightly forward but maintains no eye contact.

Student: When are we going to finish, the time now is 11:00 am; we are supposed to finish now.

Student and other students look at the teacher, but the teacher continues with the exercise.

Teacher: All of you now follow me please, from the beginning; how can we answer this question?

Student: I don't have a USB.

Teacher: Why didn't you bring it with you?

Student: This is the first time that I forgot my USB; I didn't forget my USB before.

Teacher: Every time you either forget to bring your USB or book.

The teacher's tone is angry and he makes eye contact briefly with the student who forgot her USB stick.

Student: I swear it is just one time.

The student gets defensive.

Teacher: Alright then, save your work in D drive.

All of the students are finishing and leaving without any eye contact or saying goodbye

Box 4: Kuwait transcript (timing video 50.00 – 62.00 minutes) shows the students are carrying on with the class exercise and there is little indication of a lesson closure activity.

5.6.1 Language

In the lesson closure, the teachers in Kuwait and England encouraged the students to finish the exercise they were working on and save their work. The approach to lesson closure was different in England and Kuwait. The teacher in Kuwait used words such as “quickly, speed” and “did you finish?” However the teacher in England encouraged the students positively by saying “*Now I really think you can answer this question*”. Moreover, the teacher’s voice was upbeat and motivational; for example, towards the end of the lesson the teacher said “I am sure you want to know the answers, don’t you” and then replies to himself “Of course you do”. The teacher did this to engage the students as usually towards the end of a lesson students get tired and demotivated. In contrast, the teacher in Kuwait continued to pressurise the students; for example, towards the end he told the class that if the work was not completed within five minutes he would deduct two marks. In this case the teacher suggested he would punish students who finished late. He also reacted harshly to the student who forgot her USB stick; he did not believe the student as he rebuked her for forgetting her USB stick or book all the time.

5.6.2 Bodily movements

In England the teacher kept moving to and from one group to another and did not sit in one place. He stood close to them while looking at the computer screen and pointing out what to click in order to complete the graph. His actions portrayed to the students that he was there to help and guide them.

Towards the end of the lesson the teacher came back to the centre of the classroom whilst holding the answer sheet indicating to the students that they needed to save their work on their memory stick or H drive, log off and come back to the centre of the room to discuss the answers. The students' bodily movements suggested that they enjoyed the experiment as they were laughing whilst sitting close to each other. The students shared the answers as they shared a common goal, which was to successfully complete the current activity.

However, in Kuwait the teacher only checked the students' work and continued to be dictatorial whilst strolling around the classroom to observe if the students were nearly finished or not. With respect to the teacher's tone, it certainly became harsh when he rebuked the student who forgot her USB stick. The teacher returned to stand behind the desk towards the end of the lesson, indicating that he was waiting for the students to complete the exercise and leave. He did this after going around the class and loudly telling the students to finish their activities. Furthermore, in this episode there was a lot of action in the England classroom that is worth paying attention to. For example, the teacher stopped the class and all the students immediately dropped what they were doing and paid attention. He did this by sitting next to the projection screen, facing the students and loudly asking them to pay attention. Finally, the teacher warned all the groups of students to finish on time as the lesson was soon going to end. The last activity was moderately easy compared to the experiments at the beginning of the lesson. The students had to find the answers from the statistics and record them on the answering sheet, whereas at the beginning the students had to first conduct the experiment and then perform the analysis. From this episode another observation can be made with respect to time management. In England the teacher kept reminding students how much time was left until the lesson finished. However, in Kuwait, a student reminded the teacher that the lesson had finished, but the teacher ignored this reminder and continued. This suggests that the teacher in Kuwait wanted the students to follow his rules and secondly that the teacher lacked skills in time management.

Moreover the teacher in Kuwait was strict; for example, he reminded the students to hurry up, otherwise he would deduct two marks, which represents a typical teaching style through negative reinforcement. In England the teacher encouraged the students to save their work, but he worked with the students rather than that he was sitting behind a desk. Moreover, the teacher in England called all the students to come in the middle before they left to discuss the

answers. This is an established regime, a part of pedagogical practice in English primary schools. The teacher is modelling teaching through his actions as he deliberately stood in the middle of the class, which suggests that he was implicitly demonstrating to the students that they should follow similar bodily movements when they start teaching.

5.6.3 Gaze

Throughout the lesson the teacher in Kuwait did not make eye contact, which could be considered a barrier in communication. Instead, he gazed down at the computer or looked straight at the class rather than at individual students. It was difficult for the teacher to maintain eye contact with the students when their backs were facing him. However, in the closing episode the teacher made eye contact on one occasion, when he was angry with the student who forgot her USB stick. Also at the end the students made no eye contact with the teacher or the other students and silently left the classroom without any words of goodbye or thanks. As discussed above, gaze between men and women is not appreciated in the culture of Kuwait; however, the students did not look at each other either. This could suggest that the students were shy or that the teacher did not encourage interaction. Student-teacher interaction is affected by eye contact.

In the closing episode from England it is recognisable that eye contact was one of the factors in maintaining communication between the teacher and students. A connection between gaze and object was observed, because the teacher in England drew the students' attention to the projection screen through his gaze. The teacher alternated his gaze between the students and the projection screen, which is an indication that the students needed to pay attention. Furthermore, the teacher in England continued to maintain eye contact with the students. Interestingly, in this episode it is observed that the students also maintained eye contact with their fellow students, which suggests that they gave importance to each other's opinions. Eye contact also indicates attentive listening; for example, in the group it is evident that the students paid attention to each other as they maintained eye contact whilst speaking to each other. Moreover, they laughed together whilst maintaining eye contact, which suggests they were comfortable working with each other.

5.6.4 Object

In England, the main two objects the students used were the software on the computer and the answer sheet that needed to be completed before the end of the lesson.

However, in Kuwait, the students used a USB stick to save their work as the university computers were not secure and work could be misplaced. The students also used books and a computer as objects, whereas the teacher mainly used his computer on the desk as an object in this episode. The desk also symbolised authority or power, as whenever the teacher stood behind the desk, he demanded the students pay attention. In a typical school environment or in corporate/government level jobs, working behind a desk is considered a position of authority. In some countries, such as England, in higher education, the concept of teaching from behind a desk has become discreet, however in other countries, such as Kuwait, it is still a trend. This indicates that culture, history and political background play an important role in perceiving and associating an object with power (see Chapter 3 section 3.2 for detail).

5.6.5 Discussion

Lesson closure is an important part of the lesson as it focuses on how well the students understood the objectives and content of the lesson. In England the teacher summarised the lesson by inviting the students to the centre of the class so they could discuss the answers together, which should help the students to retain the information. Before moving on to the next activity the teacher summarised the knowledge learnt with the students. In contrast, in Kuwait the teacher frequently asked the students if they understood the current exercise but did not let the students verbally summarise their learning. In Kuwait, the teacher also had strict rules in class; for example, he reminded the students that time was short but also added that if they did not finish he would deduct marks from their grades. This behaviour reflects traditional teaching methods where the teacher uses negative reinforcement and also suggests that the teacher did not manage the lesson well with respect to time. This could be attributed to the lack of formal teaching training in Kuwait as the teacher appeared to adopt a particular pedagogy that is most likely to stem from the culture and religious heritage of Kuwait as discussed in Chapter 3. Another reason behind Kuwait's approach to education is the government policy in place at present. Kuwait is a rich country and invests in the

education system. However, the results remain disappointing, because the curriculum is outdated and teacher educators use inappropriate pedagogical strategies (Al-Nakib, 2015).

This episode showed a lot of interaction between the key communicative modes. In England, the teacher used the modes in parallel to each other for two purposes: first, to get the students' attention and second, to represent information through more than one semiotic method. To draw the students' attention to the class activity, the teacher mainly used his bodily movements. For example, the teacher sat down in front of the class and called the students to pay attention to the projection screen. In this action the teacher used language, because he verbally announced that he needed their undivided attention and he maintained eye contact with the students. Thus, he communicated through a combination of modes such as language, action and gaze. This further relates to the interaction and overlapping between modes as discussed in the literature section on multimodality (Chapter 2, section 2.6). Secondly, the teacher in England used the projection screen to show the students the information on the worksheet that they had to complete. The teacher used visuals to support the verbal explanations he gave to students in terms of how to complete a particular question.

Likewise, interaction can be observed in the Kuwaiti episode, but there are fewer modes and the use of them differs from that in the English episode. The teacher raised his voice and straightened his posture when he was telling one of the students off for forgetting her USB stick. In comparison, it would be considered inappropriate in an England-based university to reprimand a student in such a public way. The teacher used modes such as language and posture from bodily movements. The teacher in Kuwait also stood behind his desk at intervals while the students were completing the task. This suggests that the teacher wanted students to know that he was monitoring them from his desk as he could easily view the students from that position. This shows that modes often overlap and are used in conjunction with each other to make meaning.

5.7 Benefit of technology in teaching (Moment)

The technology use in teacher education moment explores the current use of technology in teacher education in England and Kuwait. Both of the teacher educators in this moment use technology to teach an element of teacher education. In England (see box 5 for England

transcript) the teacher educator is guiding the student teachers through how they can use software while teaching children in school. The teacher educator in Kuwait (see box 6 for Kuwait transcript) has connected his computer to the students' computers in order to show them particular commands of Microsoft Word.

There is a lot of background noise of students laughing and giggling and talking about the work with each other.

The teacher is bending down at the student level; the teacher is looking at the computer screen with the student.

The teacher slightly looks towards the student and smiles.

Teacher: Yeah.

Teacher: This is like a chip off the old block.

The teacher points at the screen where the student is branching the data on the software called Oscar as instructed (branching data is organising the data into similar groups, by shape, size colour, etc.).

Teacher: That's it, go down.

The teacher keeps looking at the computer screen.

Teacher: Ok, that's one.

The teacher slightly gets up but is still looking at the computer screen.

The teacher stands up but leans forward and makes eye contact with the student's partner.

Box 5: England transcript (timing video 2:00 – 3.22 minutes) demonstrates student teachers learning software.

The teacher goes behind the desk and looks ahead.

Teacher: Pay attention with me by watching me through your screen in front of you.

The teacher is holding the computer mouse and looking around the class.

Teacher: Pay attention, are you ready?

The teacher is looking down at the screen.

Teacher: Your computers have now been connected with me through a program called Teacher OP, which will allow you to follow my steps.

The teacher looks around the class again.

Teacher: Attention, please.

The teacher bends down and works on the computer.

Teacher: Firstly. Can you see the ruler above?

Student: Yes.

Box 6: Kuwait transcript (timing video 7.00 – 8.00 minutes) shows the teacher educator using software that connects his computer to the students' computers.

5.7.1 Language

In this moment the teacher in England mostly observed the students but communicated with them when necessary. The teacher appeared to joke with the students; for example, when the students separated the data into groups by element such as colour and size, using the branching technique to organise data, the teacher says “This is like a chip off the old block”, which is a common expression to describe the similarity between a father and his son. In contrast, the teacher in Kuwait attempted to control the students by making sure they followed him as he introduced the program called Teacher OP, which allowed the teacher to control the students' computers from his computer. The teacher repeatedly uses the phrase “attention please”. However, the teacher in England encouraged the students through language; for example, he kept saying “that's it”, which is positive reinforcement. This showed the teacher friendly mentoring the students to give them the necessary support. Moreover, he modelled how to teach children; for example, the teacher used the same encouragement and positive reinforcement that are often used with children. However, in Kuwait the teacher in one minute of transcript used the word “attention” three times to make sure the students were listening. The Kuwaiti teacher perhaps continued to seek the student's attention, because it is common to practice this regime to make sure that students are following the instructions. The teacher in Kuwait used the Teacher OP program to not only show the instructions but also to monitor the students and their performance. This reflects the collectivist culture of Kuwait, as the students are dependent upon the teacher and feel

comfortable when they are guided by the teacher. This is discussed further in Chapter 2, Chapter 3 and Chapter 9. In contrast, the teacher in England did not let the students become dependent; rather, it appears that he was playing the role of facilitator, because although he instructed the students, he let them work independently in groups. This again reflects the culture of England where especially in higher education independent learning is facilitated. This indicates that culture plays a significant role in classroom management and behaviour.

5.7.2 Bodily movements

This moment showed a contrast in bodily movements between the teachers in England and Kuwait. For example, with respect to gesture and action, the teacher in Kuwait moved behind his desk, an action that indicates to the students that they are about to start something different and need to pay attention. The teacher stood straight, which again is a sign that he is waiting for the students to pay attention to him. He bent down to the level of the computer and explained how the Teacher OP program would allow the students to follow the work through his computer. However, the teacher in England took an opposite approach to helping the students, as he crouched on the floor so he could be on the same level as the student, which is an action showing the students that he was there to help. The teacher guided the students as to how the software worked step by step, by pointing at the screen and using facial expressions such as smiling to reassure students that they were following the instructions correctly. Another interesting way the teacher in England used bodily movement as a mode of communication was when he made the transition from crouching on the floor to standing up. Here an interaction between posture and gesture is visible. When the teacher was crouched on the floor, the student was relying on the teacher's help. However, when the teacher got up this bodily movement indicated to the students that he had helped and then he guided the students to finish the rest of the work by slightly bending forward and gesturing with a warm smile that they could carry on by themselves now.

5.7.3 Gaze

The teacher in England did not often make eye contact with the student he was helping; rather, he paid close attention to the computer screen. However, the teacher did make eye

contact in between to reassure the student that she was following the instructions correctly. Moreover, when the teacher was sure that the student knew what she was doing he made eye contact with both students and suggested what they should do next.

In contrast, the teacher in Kuwait made no eye contact with the students. However, interestingly the teacher kept looking around the class to make sure that the students were following his instructions. The teacher kept looking up from his desk and glancing over the students' computers.

5.7.4 Object

The teacher in Kuwait used the Teacher OP program to help students learn the content of the lesson, which was basic Microsoft Office skills. He used his desk as an object to indicate to the students that they must pay attention to him. In England, the teacher taught the students about new software called Oscar, which is ideal for branching a database through decision making, sorting and identification. It has many other functions, but the teacher focused on the function that deals with branching data.

5.7.5 Discussion

The teachers in Kuwait and England taught technology in relation to education, but the materials and context were different. There were also many differences in their approach to teaching and the technology itself. Firstly, the teacher in Kuwait used the software Teacher OP, which connects to the students' computers and facilitates following the teacher's instruction through shared screens. The teacher taught the layout of Microsoft Office 2003, which is outdated in comparison to the technology used in England. The teacher in Kuwait did not relate any of the content to the children the students will be teaching once they have qualified. The teacher educator in England introduced his students to more contemporary technologies utilised in schools at present. In England the teacher had a warm tone and an upbeat voice, whereas the teacher in Kuwait had a neutral tone and spoke only to give instructions. This is not to say that one teaching style is better than the other, however, the analysis indicates a difference between the teachers in England and Kuwait. This is perhaps

due to the differences in the educational, cultural and political contexts across the two countries as outlined in Chapter 3.

This moment shows the difference between how technology is used in England and Kuwait and indicates that technology appears to facilitate pedagogy. In England the teacher educator is using software while at the same time explaining the content verbally in order to make the student teachers understand. For example, the use of the Oscar software is a convenient way of organising data, which involves teaching student teachers to identify, sort and categorise data into similar groups. Software such as Oscar uses semiotic systems to represent information by visually displaying the picture as well as the text, which together reinforce the content verbally taught by the teacher. In contrast, the teacher in Kuwait relied on language, i.e. verbal explanation; again, perhaps the modality differs according to culture. This is highlighted in the discussion of the work of Kress and Van Leeuwen (2001) in Chapter 2 and Chapter 3, which suggests that a mode is unlikely to be similar for all cultures; and that rather mode is a by-product of the culture and historical influences. This does not mean that the Kuwaiti teacher educator did not use technology in his teaching. In fact, the Teacher OP program is an example of the use of technology to facilitate pedagogy. The difference between England and Kuwait in terms of technology could be that the Kuwaiti teacher educator did not have access to the latest technology, while the teacher educator in England did. Another difference as suggested from the discussion in Chapter 3 is that political and historical developments have an impact on the present education system of a country. For example, England has a longer history than Kuwait, which indicates that England had more time to research and develop its education system.

5.8 Conclusion

This conclusion is based on the selected data presented in this chapter. Overall, the data showed differences in discourse, modes and interaction between lessons observed in England and Kuwait. The discourse exhibited throughout the Kuwaiti lesson had the lecture style of giving instructions. In contrast, in England the style of teaching was based on conversation and discussions. This had an impact on the teacher's relationship with the students. In

England, the relationship between teacher and students appeared informal, whereas in Kuwait the relationship was formal.

These relationships were fostered through multiple modes. The teacher educator in England synchronised his verbal and non-verbal communication, which mediated the interaction between himself and his students. An example of this would be that the teacher in England used posture and gesture to communicate with the students, especially if they needed help. The teacher also used facial expressions to give clues to the students about whether they were going in the right direction or not in terms of completing the task at hand. For example, the teacher smiled when a student followed the correct instructions. The teacher educator's posture was open with arms by his sides in an attentive manner. This synchronisation of modes was visible in the observation of the Kuwaiti teacher educator; however, the nature of the interaction was different. The teacher educator's verbal communication and bodily movements strengthened his formal behaviour. For example, he stood firmly behind his desk during most of the lesson. Moreover, at other points in the observed lesson (episode 4) the teacher educator in Kuwait went around the class with his hands behind his back representing a figure with power and authority. The cultural differences between the teacher's status in England and Kuwait were discussed in Chapter 3, indicating that in Kuwait a teacher expects the students to show him respect and be obedient.

Technology was another mediator in connecting the modes; for example, it visually represented the information to students, which meant that language and gaze worked simultaneously in processing the information and content. Technology in conjunction with other modes such as gesture, object and action also increased the interaction between student teachers and the teacher educator. At other points in the observed lesson (episode 4), students in England were using different gadgets such as data loggers and online software to learn about data handling. In contrast, in Kuwait the teacher educator repeated similar information about the commands of Microsoft Office throughout the lesson. The overview of section 5.5 indicates that in England all students were gathered around the computer and working together to complete the task at hand, with the teacher educator in the background. Here technology mediated the interactions amongst the students as well as with the teacher educator. In Kuwait, the teacher educator used the Teacher OP program to connect the work as shown in the technology and education moment. However, again the aim was to provide

instructions through technology, whereas in England technology was used to develop interaction and enhance learning. Another factor in the use of technology is determined by the teacher's intention. The teacher in Kuwait used the Teacher OP software not only to visually show the students what to do but also to control and monitor them, as he was able to see the students' computer screens while they completed the exercise. In contrast, the teacher in England used technology to show the students different types of software that were being used in primary schools for subjects such as science.

The concept of multimodal pedagogy is limited and exercises fewer resources in Kuwait. In contrast, multimodal pedagogy appears to be embedded within the culture of England as exhibited in the classroom, because the teacher is modelling good pedagogy, which he expects students to use when they in turn go into the classroom. He might not call it a multimodal pedagogy, but it is nevertheless a very deliberate strategy. As explained in Chapter 3, multimodality is part of the culture in England, because body language, gaze and language are often used in parallel while communicating. This cultural trait is also found in education and teaching, which perhaps explains why the teacher educator in England used body language as a means of communication during teaching (Bezemer and Jewitt, 2012). This indicates that socio-cultural factors may play a role in the application of multimodal pedagogy (Jewitt, 2009).

In the following chapter, I now turn to a thematic analysis of the interview data to provide another lens to the findings of the present study. I conducted interviews as well as classroom observations in order to consider the views of the students and teacher educators directly. A multimodal framework is used to interpret the findings where possible and I will also draw on theories of pedagogy to develop this further.

Chapter 6: Comparative thematic analysis

This chapter presents the thematic analysis performed on the interviews taken from student teachers and teacher educators from England and Kuwait. The thematic analysis verifies and gives reasoning (using the triangulation process) behind the observations made during multimodal analysis in Chapter 5.

A multimodal framework is used to analyse the interview data, however, it was not appropriate for all themes, and therefore a critical pedagogy framework was also used as an internal interpretative tool. Critical pedagogy derives from critical theory and examines societal influences within pedagogy (Kumagai and Lypson, 2009). It has been used in this thesis to explore the relationships between the student teachers and teacher educators, and the opinions they have about learning and teaching in Kuwait and England. Twenty-four student-teachers and teacher educators from England (n=7) and Kuwait (n=17) were interviewed using a semi-structured approach. The English sample consisted of four teacher educators and three student teachers. There were more participants in the Kuwaiti sample: nine teacher educators and eight student teachers (for demographic details see Chapter 4 section 4.1, 4.2). All teacher educators were male, whereas all student teachers were female. The gender split in Kuwait was inevitable, because the researcher approached a college that educates girls only (for more details on gender differences in Kuwait and England see Chapter 3 section 3.2).

In the following sections each of the themes from the analysis will be presented, supported by the interview transcripts. The themes were elicited and validated following the analysis stages of Braun and Clarke (2006) as explained in detail in Chapter 4. For each theme the English data are discussed first, followed by the Kuwaiti data and finally a comparison is made between the two.

6.1 Overview of themes

This section addresses the process of theme selection and gives a description of the themes that have been included in the thesis.

6.1.1 Selection of the themes

Thematic analysis yielded many themes and it was not possible to give them all a place in this thesis. Therefore a careful selection was carried out and only those themes were kept that exhibited an in-depth portrayal of the student teachers and teacher educator's perspective on the topic of teacher education from England and Kuwait. In total there were six themes and of them two were eliminated: themes 1 and 6. The themes that were repetitive and gave similar information to the multimodal analysis were eliminated; for example, themes 1 and 6 (described in table 6.1) reflected similar information about the classroom activities that was already highlighted in the multimodal analysis.

Eliminated themes/subthemes	Description
Theme 1: Benefits of technology-enhanced learning	The benefits of technology for teaching and learning.
Theme 6: Class activities	The activities that are conducted in the classroom, especially in relation to technology. For example, are teacher educators or student teachers using iPads or educational software?
Subtheme 1: Immediacy of technology	Immediacy and availability of technology and how it aids teachers' teaching and students' learning.
Subtheme 2: Increased access to resources	Performance in learning is increased through access to resources; for example through resources such as e-books.
Subtheme 3: Technology is preferred over traditional approaches	How do the participants from Kuwait and England favour technology over traditional methods and why?
Subtheme 4: Teaching style	Identification of different teaching styles.
Subtheme 5: Lack of resources	Importance of resources for teaching and learning; in particular the impact of the lack of resources, especially with respect to educational technology.
Subtheme 6: Previous personal experience	How do previous personal experiences influence teacher educators' thinking when selecting a mode of teaching or which approach do student teachers prefer with respect to learning?

Table 6.1: A brief description of the eliminated themes.

6.1.2 Finalised themes

An overview of the main themes and subthemes is presented below in table 6.2. The table indicates that contrasting themes were selected for the present thesis in order to show the differences as well as some similarities between England and Kuwait. There are some themes, such as subtheme 1 of theme 4, that are only applicable to Kuwait, whereas the other themes show a perspective from both England and Kuwait.

These themes will each be discussed in more detail in the sections that follow.

Themes	Description
Theme 1: Multiple modes of representation	The modes of representation teacher educators and student teachers use for teaching and learning, such as visual and auditory.
Theme 2: Mixed methods	The perspective of teacher educators and student teachers on combining technological and traditional methods in teaching and learning; for example, using iPads to support conventional teaching.
Theme 3: Generation gap	Do teacher educators and student teachers differ in their preferences for technology and traditional methods of teaching and learning due to the perceived generation gap?
Theme 4: Problems in learning and teacher education	The problems participants from England and Kuwait face in teacher education.
Subtheme 1: Teachers' attitude	Specific to Kuwaiti student teachers, as they discussed their teachers' attitude as problematic for their learning.
Subtheme 2: Lack of training	The viewpoint of English and Kuwaiti participants on how a lack of training in technology is affecting teacher education.

Table 6.2: A description of the four main themes and connected subthemes.

6.2 Theme 1: Multiple modes of representation

Theme 1 highlights the ways in which multiple modes of representation can enhance learning and teaching. A multimodal learning environment can be defined as one where different

modes are used to present the same content. Mayer (2011) finds, as described in the literature review Chapter 2, that content delivery becomes more accessible once divided into verbal and non-verbal modes.

In this theme multiple modes of representation are explored with respect to the presentation of information as well the method in which the information is delivered. The theme explores the teachers' instructional styles, how the students receive information and whether different styles of teaching enhance and benefit their learning and teaching. Starting with Tracey, a teacher educator:

“Well, obviously we’ve got presentation tools, but the students were all given a mini iPad this year as well. So we’ve tried to put a few links in so that they can access materials online. They were using [the iPads] to take photographs of each other today during the session. We were looking at poetry and facial expressions and getting children to engage with non-verbal communication. We were doing that as if we were in the classroom, so they were using their iPads, mini iPads, to take photographs of each other, to record emotional response, and then look at the language that went with that.”

(Tracey, teacher educator, England)

Tracey is giving an example of a classroom activity that reflects the use of multimodality. The aspects of modality concerning presentation are evident in her description, as well as the modes, such as non-verbal communication. Tracey implies that technology has given the children the opportunity to explore different mediums of learning such as visual and sound. This may be due to the multifunctionality of an iPad, suggesting that technology is more flexible than traditional methods in incorporating multimodality in teaching and learning.

Katy shares a similar experience of using multimodality in classroom activities:

“What we want to do is, we want to bring that subject to life through multimodality so we will start using the digital flip cameras so they can just really write a very basic script, they go out there, they do some filming, some recording, they get to download their video and then they get to edit it. And hopefully all of those skills are transferrable to children in the classroom.”

(Katy, teacher educator, England)

Multimodality is highlighted in this quote in the mention of visual representation via the digital flip cameras and textual information via script writing. Although multimodality appears

to facilitate learning, the teacher still has to support the students during class activities. Students cannot just learn from using a digital flip camera if the teacher is not instructing them or giving background information about the task at hand.

Natalie has similar thoughts and suggests that teachers' involvement is necessary for learning:

"I think in my learning and teaching [during placement] I like to mix traditional and technology methods together. This is where multimodality plays an important role too. For example, I would make the children watch a YouTube video but also give extra notes and talk, which just ties everything together. I think it is important for them to see both traditional and technological methods, because they are so used to seeing technology-based gadgets such as tablet and phone, that you don't want them to forget the beauty of a book, of handwriting, individual personalised handwriting."

(Natalie, student teacher, England)

As a student teacher, multimodality is supporting Natalie in her teaching. A resource such as YouTube allows her to represent information visually. However, YouTube alone will not reinforce the information in the learner's mind. Perhaps an accompanying task, such as taking notes, will encourage the memory to retain information longer, as suggested by Kress and Van Leeuwen (2001).

The evidence from the participants above suggests that in England teacher educators and student teachers are aware of multimodality and its practice in teaching and learning. This is likely to be the result of cultural influences outlined in Chapter 3, which discusses how in England multimodality is embedded in pedagogy, whereas there is less evidence of this concept being introduced to education in Kuwait as of yet. This does not mean that teacher educators in Kuwait are not using resources such as YouTube (in fact the data indicates that they are); the main difference between England and Kuwait lies in the acknowledgement of multimodality.

Dr Ehsan is an example of a participant who understands the concept of multimodality but may not necessarily acknowledge it:

"Teachers' verbal and non-verbal communication makes content easier for students. In my class the students are less likely to get bored, because I interact with them

through technology such as YouTube, social media and face-to-face communication. I have been teaching since 1985 and in Kuwait students are accustomed to listening to teachers only and find teachers who use other methods of teaching odd.”

(Dr Ehsan, teacher educator, Kuwait)

This quote shows the cultural differences with respect to multimodality. In Kuwait the norm for students is that everything has to be learnt from the teacher. Moreover, using alternative methods is perhaps considered unusual. This implies that cultural barriers may make the introduction of multimodality in Kuwaiti teacher education challenging.

Dr Hammad appears to agree with Dr Ehsan on alternative modes of teaching:

“Using methods such as Twitter and YouTube made me interact more with my students; it enhances the relation between me and the student. I noticed that if I moved around the classroom and created a class discussion it improved their understanding of the content as well as their appreciation for the subject.”

(Dr Hammad, teacher educator, Kuwait)

Dr Hammad positively identifies multimedia approaches as an alternative method to traditional teaching methods. Multimedia enhances the relation between teacher educator and student teacher. Here, online platforms extend opportunities for teacher student communication. However, they can decrease face-to-face interaction in the classroom, because the students and teacher communicate through social media or on similar platforms (Roblyer et al., 2010; Anderson, 2014).

The evidence of this theme suggests that multimodality is more commonly used by the teacher educators in Kuwait than observed in the literature (Al-Nakib, 2015; Al-Harbi, 2014). This could be because the sample of Kuwaiti teachers contained in the present study appears to have more interest in the use of technology compared to their fellow teachers with respect to teaching. Or perhaps the only aspect missing is acknowledgement, as the teacher educators in England referred to the term multimodality, whereas the teacher educators in Kuwait did not.

The lack of acknowledgment can be the result of cultural difference between England and Kuwait. As suggested in Chapter 3, multimodal pedagogy is intrinsically interconnected with culture. However, there appears to be a discrepancy between the literature explained in Chapter 3 and the current teaching in Kuwait. The teachers in Kuwait, especially in higher

education, are using multimodality, but there is no training or awareness. This suggests that development has already begun but perhaps more research and time is required in order for the concept of multimodality to become common in Kuwait education in the future.

6.3 Theme 2: Mixed methods

There is no compelling evidence that employing technology in teaching or learning is superior to traditional pedagogy (Porter et al., 2014). This theme analyses how student teachers and teacher educators combine technology and traditional approaches in teaching and learning and explores the perceived reasons why they are beneficial for learners. Garrison and Kanuka (2004) suggest that a teacher usually selects the mode of learning based on the nature of the task at hand, and this is reflected in the data of the participants from England and Kuwait.

Literature suggests that mixed methods are the most appropriate for teaching and learning, since they incorporate the best elements of traditional methods (such as the whiteboard, reading textbooks, lecturing and handwriting notes in class) and technological methods (such as iPads, social media and online software) (Graham, 2006; Akkoyunlu and Soylu, 2008; Al-Qahtani and Higgins, 2013).

The data from both England and Kuwait indicate that teacher educators and student teachers prefer to use mixed methods in teaching and learning. Starting with Chloe in England, who talks about balance in teaching methods:

“Technology has become an integral part and important part of the curriculum. This is amongst the biggest factors that encourage teachers to integrate technology in teaching. However, in my experiences and as I have seen with other teachers, mixed methods is the best teaching approach. Traditional teaching and use of technology is ideal.”

(Chloe, student teacher, England)

Chloe is rationalising the government’s policy on including technology in the curriculum. This is likely to have wider implications, because the teachers are able to use their own experience in deciding how to combine technology with traditional methods. This is evidenced by Cloe, who appears to claim that a teacher believes a method to be good based on their previous experiences. Chloe prefers mixed methods, such as projection screens, and perceives that students are more receptive to what stimulates various senses and commands attention. It is

this ability of technology to grab and hold the attention of students that is a factor that should have a wider implication for both learning and teaching.

Tracey elaborates on whether in her experience technology and grades are positively related in teacher education:

“I don’t know whether technology has enhanced the relationship between technology and grades. In terms of benefits, I see it makes a really good presentational tool and makes it very easy to access clips, and video clips and audio clips, and for them to take pictures and then put them up and display them on the board. But other than that, I don’t know. And it certainly hasn’t helped in attendance and grades, I don’t think. A teacher’s influence is necessary, like the olden days.”

(Tracey, teacher educator, England)

Research suggests that in higher education technology helps with finding information for assignments and exam preparation (Goodall and Pattern, 2011), which suggests that technology perhaps is advantageous in the preparation of good grades. However, to ensure a decent grade, students are still obliged to first attend class and put in effort through independent studies (McCabe and Meuter, 2011).

Here, Tracey, although subjective in her opinion, reflects the research finding above that technology or mixed methods unfortunately do not change the face of education and rapidly improve students’ performance as perhaps educators thought it would. Instead, she cautions that technology has not improved students’ attendance, especially in higher education, because students believe that all the information and material can be accessed online, outside of the classroom. It seems that some students might take advantage of mixed methods.

Tracey further adds:

“Even with integrating technology with traditional methods, I think you still get the range of grades. You still get the lower grades and you still get the people who will put that extra effort in and get the higher grades and those that sort of sit around the middle.”

(Tracey, teacher educator, England)

According to Tracey, the claimed benefits of mixed methods can be questioned, because good grades in assignments and exams are the result of understanding the subject and students' efforts. Research suggests that this relationship between effort and grade is globally observed (Komarraju and Nadler, 2013), and that grades are determined by students' self-efficacy in terms of how much potential they see in themselves (Komarraju and Nadler, 2013), rather than one particular method for learning.

Tracey's opinion supports the research mentioned; however, another teacher educator from England, Ian, views mixed methods more positively:

"For example, if I am teaching history in primary school...and a lot of children will just think oh God no, boring...but if you say to them "we're going to make movies today about the Tudor Kings, about Henry VIII", suddenly it's interesting, yeah? Because I am mixing old methods of me talking and referring to the textbook while also using visual aids and making sure they actively engage in the lesson. In my opinion, if a teacher is a good performer and uses mixed [methods], learning is enhanced and there's plenty of research that will back up what I am saying."

(Ian, teacher educator, England)

Ian appears to strongly support mixed methods, as he believes they make a potentially boring lesson exciting. He suggests that sticking to the same mode of learning (i.e. relying on the textbook) can make a lesson boring. However, if the same content is received through visual, tactile and auditory channels by making a movie for example, then, he suggests, that children are more likely to learn. It, however, remains a question whether they want to learn or not.

The assumption is that engagement in activities through technology allows students to participate in active learning, because they feel empowered and independent (Gilboy et al., 2015). However, research also suggests that the technology of mixed methods can be distracting and disruptive, because students become preoccupied with the gadget to such an extent that learning is displaced during the activities (Blackburn et al., 2013). It is also argued that students are more likely to learn if they actively contribute to class activities, because they pay attention and concentrate better on the learning materials. Ian is correct to an extent in saying that research supports his opinion, as Low and Sweller (2005), Mayer and Chandler (2001), Mayer (2005), Moreno (2006) and Moreno and Mayer (1999) suggest that mixed methods alongside interaction put less burden on our cognition and allow more

information to be retained in long-term memory. Whether mixed methods facilitate learning or whether it is the teacher's effort that enhances learning is however not clear.

In the given sample, the teacher educators and student teachers from England appear to have different opinions on mixed methods. All of the participants quoted above imply that technology integrated with mixed methods facilitates teaching and learning; however, they disagree on its relationship to learning.

The view on mixed methods of the teacher educators and student teachers in Kuwait is similar to that of the participants from England. Dr Ibrahim explains how he uses both technology and traditional methods in class:

“The lecture is usually one hour and the number of students in the classroom is 75, and if each student wants to ask a question, the class would be over before we finish everything. Therefore, I combine my lecturing with technological tools such as Twitter. I have a hashtag on Twitter; I project it on the board and if any student has a question, he/she sends it through Twitter and it will be projected automatically on the board. If I feel that the question is important, I stop the lecture and answer the question. The good thing about this is that the students started answering each other's' questions.”

(Dr Ibrahim, teacher educator, Kuwait)

Dr Ibrahim refers to the immediacy of technology, and the benefits it can bring during teaching. However, the wider aspect here perhaps is interaction. His choice of traditional teaching methods (lecturing) and technology (Twitter) both initiate interaction in the classroom while facilitating teaching and learning. Technology and representation of information and interaction are both relevant but can in fact be categorised separately. Technology as referred to by Dr Ibrahim is a tool and only facilitates teaching or learning when it is used for the purpose of interaction. For example, Twitter is only actively used when Dr Ibrahim uses the traditional method of lecturing and he interacts with students through Twitter as well as face-to-face.

The integration of technology with traditional teaching methods in Kuwait is viewed by a few of the educators in the Kuwaiti sample as an opportunity to monitor and control their students' activities in class. Dr Hassan:

“The traditional method made it difficult to convey the data for each student, and of course it was difficult to see what each student was doing. For example, I would have to move some of them if they might be talking and some would not pay attention. So technology saved me time and allowed me to control the students. Now I can follow them by connecting my computer to theirs and follow them in class.”

(Dr Hassan, teacher educator, Kuwait)

Dr Hassan suggests that the benefits of incorporating technology into traditional teaching pedagogy is that he can “control the students” by “following them in class” via their computers. Also this approach could be easily extrapolated and used in a mixed method in teaching. Dr Hassan’s method of monitoring students via computers reflects the historical aspect of controlling one’s students that could be brought into multimedia teaching pedagogy.

It is interesting to examine this controlling aspect through the lens of critical pedagogy. Every culture is different and educational methods vary from country to country. It is perhaps superficial to want to rank one education system of a country in relation to another, because they are inevitably influenced by their own history. In theme 2 (multiple modes of representation) for example, I observed that the participants from England were using the term multimodality, whereas the participants from Kuwait were not, while both teacher educators used it in practice. This suggests no difference in underlying approach but a lack of recognition of the concept of multimodality by Kuwaiti interviewees. Perhaps this is due to culture differences rather than one education system being better than the other.

Conclusively, this theme indicates that teachers and student teachers prefer to integrate technology and traditional methods. Teacher educators from both countries did not say they preferred one method over the other; instead they are in favour of using technology in parallel with traditional methods. In terms of research, Ertmer and Ottenbreit-Leftwich (2013) claim that teachers today prefer to integrate technology in pedagogy, because it makes them feel confident that a lesson is less boring and more interactive. In this chapter it has been argued in several places that whether technology enhances learning is debatable; research does suggest, however, that technology plays a positive role in teaching.

6.4 Theme 3: Generation gap

This theme explores the notion of a generation gap, which suggests there are differences in the methods used by teachers of the present and older generation. This theme critically examines the perceptions of a generation gap and whether certain methods of teaching and learning are more specific to one generation compared to the other. As discussed in Chapter 2, the literature clearly suggests that there is no evidence for the relevance of terms like ‘digital natives’ or ‘digital immigrants’ (Selwyn, 2009; Ornellas and Sancho, 2015) (for a more detailed discussion see Chapter 2). In this theme the focus is on generational difference of preferences and viewpoints of teacher educators and student teachers regarding the use of technology in education.

Technology and interactive gadgets in education have become popular in the past two to three decades (Beetham and Sharpe, 2013). Some people may prefer to use technology, while others may not; however, their preference may be shaped by their experience or exposure to technology. Participants from England shed light on how their early years’ education influenced their decision whether to use technology or traditional methods. Starting with Cloe:

“The preference for technology depends on people’s prior experience; there’s lots of people that are really advanced when it comes to technology and there’s lots of people that are just starting out. In my teaching experience I see mature students always struggling with technology, but the young students grasp the idea quite quickly.”

(Cloe, student teacher, England)

This quote suggests that there is perhaps a generation gap, as students nowadays have had access to technology at home and in educational institutions since they were young, whereas mature students and teachers who qualified when technology was not easily available may find it difficult to adjust to the technology-oriented education system. However, this does not mean that the latter group of people cannot operate technology. Preferences are likely to exist, but the reason for choosing traditional methods over technological is most likely to be due to lack of access at the time when the older generation was being educated rather than their ability to use technology (Selwyn, 2009; Ornellas and Sancho, 2015).

This argument about access to technology and differences in the perceptions of generation is further supported by Abbey:

“I am a mature student, so when I started working in schools thirty years ago [pause] there was no access to technology or variety of resources, so when I initially started [to train as a teacher] I had problems in understanding the systems such as Moodle and the general way of teaching and learning through technology, but I guess it is a matter of practice like Ian teaches us to use technology. He breaks it down and it is interactive and I have picked up a lot even if there was a generation gap between me and my peers when I first started this course.”

(Abbey, student teacher, England)

Abbey is confirming what the literature says, namely that being equipped to use technology is a matter of practice. Practicing and using technology is in fact easier now for anyone, because it is accessible in the form of mobile phones, tablets, television and educational gadgets, such as software to learn different subjects, for example languages. People who did not grow up with technology can therefore easily learn, as Abbey did.

This element of teachers adopting technology is also observed by Kuwaiti participants. Dr Ibrahim shares his thoughts:

“The students of the present generation are so technologically oriented and this gives us the motivation to use more technology; however, the problem I experienced is with teachers and parents of students who do not fully understand technology for education, because of the generation gap. The main problem I have is with female students due to their parents. We use the internet all the time mostly for communication. The parents, for example, have a problem when their daughters have to communicate with other people, teachers or students if they are male, for homework purposes. Therefore, some parents do not agree with that idea and might reject technology. So this is the difficulty I faced.”

(Dr Ibrahim, teacher educator, Kuwait)

Here Dr Ibrahim highlights two factors: gender and social media, which are perhaps not problematic because of a generation gap but rather because of the culture of Kuwait. For example, parents do not have a problem with their daughters using PowerPoint, as they believe it is for educational purposes. They do not, however, value the use of social media, because their daughter may have to interact with the opposite sex. Al-Nakib (2015) notes that Kuwaiti parents are perhaps overprotective of their daughters, because in Kuwaiti society it is considered religiously and culturally disrespectful, or inappropriate if a daughter communicates unnecessarily with the opposite sex. Perhaps parents are hesitant to allow

their daughters to use social media out of fear that their Islamic identity would be compromised.

Dr Hammad provides an alternative view to the one given by Dr Ibrahim:

“All students like to teach with technology and I have also learnt to teach with technology, despite of lack of resources, but I have self-taught and received training abroad. However, in my experience female students are more careful and caring for their studies, they have a sufficient background in technology, the girls have a good background; they do not start from nothing, like the male students, who are careless.”

(Dr Hammad, teacher educator, Kuwait)

Firstly, Dr Hammad shares the view of Abbey and Cloe from England that with practice technology can be learnt. Secondly, Dr Hammad here again speaks of gender differences in line with Dr Ibrahim. However, Dr Hammad believes that girls are more enthusiastic about learning than boys. This observation supports the literature explored in Chapter 3 (section 3.3) that has found that both in England and Kuwait more girls opt for higher education than boys.

In conclusion, this theme provides evidence in support of the existing literature, which classifies the concepts of digital natives and digital immigrants as myths. The reoccurring concept in the opinion of both countries' participants was practice. Teacher educators agreed that with practice they were able to use technology without problems.

In Kuwait, technology is also viewed as different for boys and girls due to cultural values and customs. It is perhaps related to the expectation society has of girls and boys in Kuwait. In the culture of Kuwait there are different standards for males and females, and society may find it acceptable for boys to use social media but not girls. In light of the literature this is not directly related to religion; rather this difference in perception between girls and boys is a by-product of culture and tradition (Al-Nakib, 2015). For more details see section 3.3, Chapter 3.

6.5 Theme 4: Problems in learning and teacher education

This theme presents problems highlighted in the data concerning teacher training in relation to technology. These problems include teachers' negative attitudes, lack of technology and lack of training for the staff who teach the student teachers. This theme illustrates which

problems in teacher education are shared across both countries and which problems are specific to one country. The problems have been further divided into two subthemes: teachers' attitudes and lack of staff training, because these issues are highlighted as most prominent in the data. Therefore it was worth taking the findings presented in the data in order to show the current problems associated with teacher education in England and Kuwait without overlapping information in one theme.

6.5.1 Subtheme 1: Teachers' attitudes

Teachers' attitudes have an impact on the methods chosen for teaching. As exhibited in the themes already discussed, teaching styles that utilise interaction are key in engaging student teachers with the lesson and learning. Subtheme 1 is specific to the Kuwaiti context, as only the Kuwaiti data suggested that the student teachers were not satisfied with the teacher's behaviour towards them in class.

I will start to explore this subtheme with student Noor:

"In my experience of being a student teacher so far I have seen good teachers, who explain faithfully and you feel their sincerity in explaining; on the other hand there are the opposite of those teachers. These teachers expect you to know everything and they believe they are only responsible for giving a lecture, and expect us to remember all the information we heard during the lecture."

(Noor, student teacher, Kuwait)

Noor compares two distinct categories of teacher trainers she has come across during her training: the first, perhaps, being interactive and the second one teaching strictly with an information delivery model. Later in the same interview, Noor says that higher education requires students to be more independent. However, guidance is still needed from the lecturers, as Noor implies in the quote that one difference between good and bad teachers in her opinion is the way the content is explained by the former.

Perhaps Noor is hinting at the mode of representation, because when she speaks of the latter type of teacher, it sounds as if the teacher only explains verbally, i.e. through auditory mode, and that few technological resources are used during teaching. Lecturing is quite a popular teacher style in higher education. Research suggests that especially in the West teachers

expect students to take the lecture as a starting point and put effort into the subject by doing extra reading (Clinton, 2011). However, within the culture of Kuwait, teachers are considered authoritative figures in society and they expect students to listen, follow and retain the information taught in class. In Kuwait, teacher training mainly transfers traditional teaching methods to upcoming teachers (Al-Nakib, 2015) and this method is carried into the education system in a cyclical pattern.

Sumia seems to agree with Noor that teacher educators lack in providing explanation and technological resources:

“The teachers are not explaining things perfectly or using technology to teach; when the time comes for the final exams, most of the students have forgotten the main topics, because we only receive lectures [verbal explanation] and at times it is impossible to take notes and listen to the teacher at the same time during the lecture, which affects our understanding and then ultimately our grades, which are bad.”

(Sumia, student teacher, Kuwait)

Sumia expresses the same concerns as Noor about the lack of technology during teaching. Technology helps to present information that a student may have missed through the tradition of note-taking. For example, many university and college lecturers in the UK now record each lecture and post it up on the institution’s intranet website. This will not only help those students who are unable to attend the lecture for a myriad of reasons, it also helps those who did attend the lecture but missed some facets of the lecture, because they were too focused on taking notes for example. Moreover, these videos will still be available during exam time as well (which may be six months after the original lecture), thus giving the opportunity for the students to revise visually in real time. Sumia further says that “teachers are not explaining things perfectly”, suggesting that the student teachers are unable to understand the teachers, which results in them forgetting the information, specifically whilst sitting exams. This relates to Noor’s complaint about over-reliance on one mode/method (in this case auditory), which can overload the cognitive system and lead to information decay and displacement whilst it is being processed from short to long-term memory (Hembrooke and Gay, 2003).

Husna gives a reason for the lack of explanation from teacher educators:

“The difficulty that I face is that the teacher explains from A to Z the teacher’s point by point, but he says ‘you are university students; I should not explain this to you...I will only explain this once and the rest you should do in your independent studying.’ Sometimes we turn to private lessons. I have hired a teacher, and so the private tutor explains everything that I don’t understand from the teacher at university, because the teacher won’t explain, he will [only] give us the information verbally, and if I relied on his explanation I would probably fail. Here in Kuwait, we...are weak in the English language, [while] most of the curricula for the ICT subject I mean the material and content is all in English. The other subjects, however, are in Arabic.”

(Husna, student teacher, Kuwait)

Here Husna speaks of how some facets of the Kuwait education system limit her learning. Despite her desire to improve her knowledge base, she finds that she is limited by the teaching pedagogy and has to seek help elsewhere to cope with her university curriculum. Interestingly, Husna quotes her teachers as saying that “you are university students; I should not explain this to you”; apparently they assume that university students do not need teaching as they are expected to learn independently. Although it is true to an extent that university students are expected to carry out independent learning and most of the hours in the course are allocated for reading (Astin, 2012), teachers still guide the students towards reading material and explain concepts they find difficult. This is where technology could play a crucial role. If teachers assume that explaining concepts once is enough for students to grasp them, they are not catering to the various academic abilities of the students in their care. Here, video technology would be most useful. Instead of explaining things only once, when recorded, the concept can be explained numerous times, rewind and played back again, catering to all academic abilities, because for some students, it takes more than one explanation. Moreover, by using video technology to record lectures, students can pause videos to look up various concepts that the lecturer mentions in real time, expanding their knowledge as the video progresses, as the opportunities to learn increase drastically.

Dr Omar gives his opinion about the teaching training he received:

“We graduated from university with a weak level of knowledge and background and insufficient education. We are used to just giving a lecture to the students and that’s it, like standing in front of the class and talking, and we expect the students to follow us and the rest of their learning they should do in their own time. However, sometimes this is not the best practice, as students need more explanation and so now I interact with my students.”

(Dr Omar, Teacher educator, Kuwait)

As a teacher educator adopting traditional pedagogy, Dr Omar feels powerless to engage the students in lessons, as exemplified by his use of phrases like “insufficient education” and “just give a lecture”. Dr Omar seems to suggest that there is an alternative to traditional pedagogy that might engage, interest and even empower students. An alternative pedagogy could be accessible through mixed method teaching. Like Noor, Husna and Sumia, Dr Omar emphasises the aspect of lecturing. Here he may be implying that he is accustomed to only give lectures, i.e. that he talks in the lecture theatre and expects the students to absorb and retain the information taught. This suggests that Dr Omar does not use visuals and interaction during his lectures. However, he does acknowledge that teaching through auditory means only may not be appropriate for all occasions and he therefore has begun to interact with the students.

6.5.2 Subtheme 2: Lack of teaching staff training

Teaching staff are often given training on new teaching pedagogy, change or revision in curriculum and technology developments. This subtheme examines the concern of teacher educators and student teachers in England and Kuwait with respect to lack of training in teacher education.

Ian is concerned about a lack of training in schools:

“I worry that in school teachers aren’t trained enough, because when I ask students if they remember doing data logging at school, if they remember doing control at school, they look at me as if I’m stupid, because they can’t remember doing this at all. Yet it’s been in the curriculum for twenty-odd years now. So why wasn’t it being done? The national curriculum, the statutory national curriculum, says these kinds of things have to be done. But teachers haven’t been doing them. Why haven’t they been doing them? Lack of training, to my mind. That’s my opinion.”

(Ian, teacher educator, England)

In Ian’s opinion, this discrepancy between the curriculum and implementation is due to lack of training. The lack of training, however, could be the result of insufficient funds. Lack of training in fact is not mentioned only by Ian but by all of the participants from England. Research into the change in the political and financial climate of England suggests likewise that there is not enough budget for training (Gurney-Read, 2015).

Tracey adds that training is important, as it teaches the teacher educators how to use traditional and technological methods in balance:

“Schools have all got interactive whiteboards now but how effectively they’re used. Even in primary school, you’re seeing lessons delivered by PowerPoint, which I don’t know whether that’s ideal or not for young children. It’s just being used as a presentational tool, even in primary school, rather than being used to its full interactive potential. I believe it is due to lack of training, because young teachers especially rely on technology a lot, which is fine, but to use PowerPoint for everything is a bit too much. They need to be taught the classic way as well, which is to follow the teacher and practice writing.”

(Tracey, teacher educator, England)

Here Tracy is implying that teachers are familiarising children with technology from a young age and perhaps depriving them of traditional methods such as note taking and reading books. However, it is unclear whether the overuse of technology by teachers is due to lack of training or a consequence of the popularity technology has gained in the present times.

Furthermore, lack of training can be a result of lack of funding. Katy shares her thoughts on this:

“I think one of the biggest problems that we get, and this is all feedback from the students, is that some of the schools they go into are very poorly resourced; it’s all down to funding. Like some of our student teachers come back to us and complain that some schools are still using outdated sources, whereas some schools will have iPads for the whole class; so there is not a balance yet in the state schools.”

(Katy, teacher educator, England)

A discrepancy between schools does exist (BESA, 2015), but this does not necessarily mean that schools with outdated technology lack in quality and attainment. Toyama (2011) argues that technology amplifies the pedagogical capacity of the education system but does not make a school ‘good’ or ‘resourceful’; rather, good teachers and nuanced administration assure quality. A recent study by Donnelly et al. (2014) concluded that England has abandoned traditional technologies such as the chalkboard, which also represents information visually and assists the verbal explanation of the teacher particularly well. This indicates that technology has highly influenced education in England but according to the data in the

present study there are some teachers who prefer to teach using traditional pedagogies, whereas other teachers prefer to use the mixed method approach.

Unlike in England, the funding for training and technological resources seems to be readily available in Kuwait. However, putting the action plan into practice is undermined by a weak strategic approach, according to the research participants. Starting with Dr Ehsan:

“Kuwait is a rich country and we do have money but unfortunately, there is not enough equipment. But I attribute this to bad planning and organisation. The faculty and the education ministry do not put the funds in the right places; like for a long time we have had the same equipment, hardly any class has an interactive whiteboard and this is not due to money but due to poor management.”

(Dr Ehsan, teacher educator, Kuwait)

The key issue that can be derived from Dr Ehsan’s quote is that although it may advocate government policy in terms of mixed method/multimodal pedagogy, some schools simply do not have the infrastructure to undertake such a method

The unavailability of whiteboards suggests that lessons are often constructed around lecturing and information delivered verbally to the student teachers. Also, the student teachers are likely to follow the same practice of auditory teaching in their practice, because only one mode of teaching was modelled in their training.

The lack of resources is perhaps a result of lack of training as well, Dr Ehsan suggests:

“There are no mandatory training sessions in university and secondly, the unavailability of technology and the outdated curriculum discourage the teachers from learning and developing. The teachers end up learning from their own experiences, which sometimes is a good practice and sometimes not so great, because if there is a new technology then only the developer can best guide us on how to make the best use of it in our teaching.”

(Dr Ehsan, Teacher educator, Kuwait)

Again, Dr Ehsan implies that there is a reciprocal cycle to teaching pedagogy in Kuwait. By “learning from their own experiences”, we understand that most student teachers learn to teach by observing traditional teaching pedagogy. This carries on with the next generation of student teachers. It appears that he is specifically referring to resources such as interactive whiteboards, iPads and teaching software, as teachers would need professional training to make the most of them in their teaching. Another reason for poor management could be the

result of lack of involvement of the competent authorities (the Ministry of Education and university faculties), which do not organise routine inspections or trainings for the university teachers.

Dr Hasan further adds:

“We don’t have the authority to change education overall; we live in educational chaos.”

(Dr Hasan, teacher educator, Kuwait)

Dr Hasan is explicitly saying that he as a teacher does not have the power to change the system. Perhaps he is suggesting that only the Ministry of Education can bring change to the education system in Kuwait (Hamad, 2013).

Dr Hammad echoes Dr Hasan’s opinion:

“Lack of training is one of the main problems; training increases the skills of the teacher trainer. Being without training causes problems for the student teachers, because they are not receiving quality training; also it is unlikely to [see an] increase [in] knowledge and understanding without proper training, especially with respect to technology and teaching methods.”

(Dr Hammad, teacher educator, Kuwait)

Dr Hammad is clearly concerned that due to their poor training, student teachers are likely to have inadequate theoretical and practical knowledge. Dr Hammad’s opinion here alarmingly highlights a cyclical pattern: when teachers are not armed with the technological knowledge due to the lack of training, they pass on their lack to student teachers as well. This has wider implications for the upcoming generation of teacher educators and student teachers in Kuwait.

In conclusion, this theme has discussed multiple problems that exist in the field of education. These problems are teacher trainers’ attitude, lack of resources and lack of training, which seem to overlap, suggesting that all would need to be addressed together in order to produce knowledgeable teacher trainers and student teachers in both countries. However, the first subtheme suggests that teachers’ attitude is problematic specifically in Kuwait. Student teachers from Kuwait were dissatisfied with their teacher’s attitude, because the teacher did not give them enough time in class. The data suggests that some student teachers claim that

teachers expect them to already know the subject they are studying at university, which diminishes the students' interest or passion for their chosen course and leads to withdrawal. In England, the student teachers did not raise the issue of teachers' attitude, suggesting that this problem resides solely in Kuwait.

6.6 Summary

Like the multimodal analysis shown in chapter five, the thematic analysis also yielded similarities and differences between England and Kuwait. With respect to similarities, the thematic data indicates that both teacher educators and student teachers of England and Kuwait believe technology to be an integral part of teaching and learning, however in coalition with traditional methods. The analysis revealed that all of the participants appeared to agree that students/children cannot solely rely on technology as they require instructions and guidance from teachers. This suggests that it is imperative for teachers to intervene and facilitate the student's learning. Another similarity found between England's and Kuwait's participants was with respect to the generation gap (theme 3). This theme supported the findings from the literature that not only the young generation is equipped with the skills to operate technology and use it in everyday life. Rather, anybody can work with technology if they are exposed to it and given the chance to practice it. In fact, one of the teacher educators from England claimed that technology has not improved attendance or grades, which ties in with the previous point that traditional teaching is equally or perhaps more important than technology. Finally in terms of similarities, in both countries, England and Kuwait, lack of training appears to be a problem, albeit that the root of the problem is different. According to the participants from England there is a lack of funding, which results in insufficient training, whereas in Kuwait, the teacher educators agree that the problem is lack of infrastructure in management and curriculum rather than funding.

With respect to differences, the student teachers from England did not find the teacher's attitude to be a problem, whereas for the Kuwaiti sample it was a major concern. The student teachers from Kuwait believed that the teacher educators did not support or relate the actual training to their practical field. The reason behind this is perhaps explained by one of the teacher educators who claimed that most of the teacher educators graduated from Kuwait

University, which has improved little in practice and resources since then. This is likely to have wider implications for upcoming student teachers, because they are learning from the same outdated curriculum and reinforcing the reciprocal cycle of poor teacher education in Kuwait.

Teachers' attitude and related elements such as preferences in teaching and learning styles are discussed in the next chapter, to answer the first research question, which asks for a comparison of the perspectives of teachers and students with respect to teaching and learning.

Chapter 7: Perspectives on teaching and learning

This discussion chapter will answer the first research question of this study: *what are the perspectives of teachers and students with respect to the student-teacher relationship and multimodal teaching and learning?* In line with the aim of this study, which is to explore current practice in the training of student teachers in England and Kuwait, this research question aims to compare teachers' and students' perspectives on student teacher relations and multimodal teaching and learning. The similarities and differences between England and Kuwait that emerged in the analysis will be part of this discussion.

The perspectives of the teacher educators and student teachers were shaped by the educational systems of England and Kuwait. Teacher training is structured differently in England and Kuwait in terms of pedagogy, teaching style, resources and experience as outlined in Chapters 2 and 3. Teacher educators in both countries held the same opinions on certain aspects of teaching and learning while disagreeing on others. This chapter will compare these perspectives, while acknowledging the differences between England's and Kuwait's cultural and educational backgrounds.

This comparison of England and Kuwait is based on two aspects: factors affecting student-teacher relationships and preferences in teaching and learning. These aspects have been drawn from both the multimodal and thematic data. The section on factors affecting student-teacher relationships mainly explores the relationship between teacher educators and student teachers by looking at issues such as teaching approach and teacher's attitude in the classroom. The section on preferences examines the likes and dislikes of teacher educators and student teachers with respect to teaching methods, learning methods, technological resources and physical characteristics of the classroom.

7.1 Factors affecting student-teacher relationship in teacher education

There is no clear-cut definition of the term 'student-teacher relationship' as outlined in Chapter 2. Some researchers believe it to be a rapport between the student and teacher, whereas others identify learning to be influenced by social interaction coming from the teacher (Good and Brophy, 1995). In the context of the present study both of these definitions

appear to show through, especially in the multimodal analysis. This section will examine factors that appear to affect the student-teacher relationship from the multimodal as well the thematic data. This section will begin by discussing the teaching approach, which includes the student- and teacher-centred teaching styles. The multimodal and thematic data indicate how the teacher educators from England and Kuwait use opposite teaching approaches. Another factor discussed in this section is teachers' attitude in the classroom. This factor highlights how the teacher's attitude with respect to discipline and non-verbal communication affect the student-teacher relationship.

7.1.1 Teaching approach

As identified in Chapter 2, in the field of education there are many approaches to teaching, but in line with the data two main approaches have been selected for this study: the student-centred approach and the teacher-centred approach (Chen and Jones, 2007). In the student-centred approach, the teacher recognises that every student is an individual with their own learning style, classroom responsibilities are shared and working in groups is an integral part of this approach (Chen and Jones, 2007). The teacher in this approach is a guide and a facilitator with a mostly informal attitude towards the students. The teacher-centred approach describes what might be considered more traditional teaching, in which the teacher is the main resource of information, the model of teaching is instructional and little attention is paid to interaction between students and teacher relationship (Garrett, 2008).

Both of these teaching approaches are relevant to the present study as the data from multimodal and thematic indicated that the teacher in England utilised a student-centred approach, whereas the teacher in Kuwait practiced the teacher-centred approach. The teacher educator in England, in the multimodal data in **episode 1 (beginning of the lesson)** and **4 (lesson closure)**, appeared to be guiding and collaborating while focusing on the students instead of dictating instructions, which exhibited the student-centred approach. For example, **episode 1 (beginning of the lesson, thesis section 5.5)** showed how both teacher educators started the lesson. The teacher educator in England started the lesson by forming a conversation with the students. He asked the students: "How has your week been and did you use those iPads?" Here, the teacher educator conducted phatic communication (a way to

start a conversation also known as small talk) (Coupland et al., 1992) as well as reminding the student teachers of the previous lesson through asking whether they used their iPads during placement. In line with Van de Pol and Elbers (2013), phatic communication was used here to initiate conversation and draw the student teachers' attention to the main event. The teacher educator in England built up the conversation with the student teachers towards the purpose of the lesson. He remained friendly and informal which made the beginning of the lesson enjoyable for the student teachers (see table 7.1). This is in line with findings from the thematic data, as the teacher educator featured in the multimodal analysis stated in the interview that teachers are supposed to perform and should make the lesson entertaining as well as informative for the students.

The teacher educator in England had a positive and a warm approach in his attitude towards his teaching. The language and his bodily movements appeared to be synchronised and exhibited a positive attitude in front of the student teachers. For example, in **episode 1 (beginning of the lesson, thesis section 5.5)**, the teacher educator initiated a discussion with the students and simultaneously increased proximity with the student teachers as he leaned forward and made eye contact, which supports the work of Quinlisk (2008), who claims that nonverbal communication reinforces positivity in the student-teacher relationship and encourages people to interact.

England	Kuwait
<p>TE: "How was your week"?</p> <p>TE: "Did you make plenty use of the iPads?"</p> <p>ST: Student teachers respond and say yes.</p> <p>TE: "Today is action packed and lots to do. Anyone done data handling?"</p> <p>TE: "Well, there are about five different types of data handling."</p> <p>TE: "And one more thing: HAPPY NEW YEAR!"</p> <p>ST: Student teachers laugh out loud and seem surprised by the teacher's action.</p>	<p>TE: "What's the tool relating to the page, what do you expect the answer is?"</p> <p>ST: Student teachers say layout.</p> <p>TE: "Now go to the page layout tool and click on layout."</p> <p>ST: Student teachers follow the teacher's instruction.</p> <p>TE: "Note that page down."</p> <p>ST: Student teachers follow the teacher's instructions.</p>

Table 7.1: Differences in informal and formal language used by teacher educators in England and Kuwait. (TE: Teacher educator; ST: student teacher)

This informal language used by the teacher educator in England is demonstrated in table 7, which shows that the teacher educator used informal language and how the student teachers responded. The reaction of the student teachers was informal too, as they laughed out loud, giggled and talked to each other about the actions carried out by the teacher educator, which suggests engagement as reported by Martin et al. (2006). Table 7 also relays how the teacher educator took the students by surprise when he said “Happy New Year” loudly, which made the students react excitedly. The teacher took this feedback and continued to repeat the sound monitoring experiment three times with the students. The teacher educator intended to involve the student teachers in the classroom activity by interacting with them. The exercise led student teachers to pay attention to the teacher as observed from the multimodal data.

Research suggests that communication plays a positive role in learning. Goodboy and Mayers (2008) compared lecturers who communicated more with their students to lecturers who communicated less. Their findings suggest that communications fuels cognitive development and give shape to semantic learning. In the present study, the data from England showed that student teachers were actively communicating with the teacher educator during the lesson as evident in *episode 1 (beginning of the lesson, thesis section 5.5)*, which supports the finding by Goodboy and Mayers (2008) that interaction between student and teacher enhances learning.

The teacher in England made the lesson fun and interesting for the student teachers; it did not appear to be a typical traditional lecture but rather a hands-on workshop or tutorial. Findings from Frenzel et al. (2009), who looked at whether teacher’s enjoyment was positively linked with student enjoyment, are in line with the observations made from the multimodal data from England that teacher’s enthusiasm and fun attitude mediates a good teacher-student relationship especially with respect to learning. For example, in *episode 4 (lesson closure, thesis section 5.6)*, the teacher educator closed the lesson in the same pattern as he started it. The teacher called all the students to the centre of the class to engage with them and discuss their answers. He used a jokey, loud tone: “Okay folks, I am sure you want to know the answer, don’t you, of course you do” and as he spoke he moved to the centre of the class. The student teachers answered while laughing and joking.

The findings from the multimodal data with respect to the teacher educator in England are similar to the findings observed in the thematic analysis. During the interviews, the teacher educator (who was also observed in the multimodal data) said that a teacher should be a “good communicator” and “a good performer”. Both of these attitudes belong to the *facilitator* (where the teacher takes initiative and guides the students towards active learning through class activities and discussions) teaching style (Grasha, 1994), which falls under the student-centred approach. Furthermore, in the data the teacher educator said that a teacher needs to “engage” the students in the lesson and make it exciting. Here the teaching style of this teacher educator was also observed in the multimodal data where he was communicating with the students. The student teachers appeared to enjoy his teaching as they appeared relaxed and took part in the class discussion indicating active learning. This reflects the facilitator teaching style, because the teacher allowed the student teachers to engage while the teacher guided the lesson. Further evidence came from an interview in which one of the teacher educators from England said: “I like to work in small groups with the student teachers, so we share ideas”, which implies a *delegator* teaching style (where students learn by working in groups and enhancing interpersonal relations). This shows that a teacher is leading and guiding the lesson but at the same allows the student to contribute their ideas and thoughts, which encourages independent learning as highlighted by the delegator teaching style. This is further reflected in table 7.2, which compares England and Kuwait in terms of the words that portray the teaching style of its teacher educators. The table shows the teacher educators from England followed teaching styles that fall under the student-centred approach, whereas according to the student teachers in Kuwait the teacher educators followed the teacher-centred approach.

Words and phrases that suggest the teaching style of the teacher educator	England/Kuwait teacher educator or student teacher	Type of teaching style	Student-centred or teacher-centred	Location in the data
<i>“Teacher educators say they are only responsible for giving a lecture, and expect us to remember all the information we heard during the lecture.”</i>	Student teacher, Kuwait	Expert and formal authority	Teacher-centred approach	Subtheme 1 under theme 4
<i>“Also forming groups in the classroom to interact.”</i>	Teacher educator, Kuwait	Delegator	Student-centred approach	Subtheme 1 under theme 4
<i>“The teacher educator explains from A to Z, he explains point by point, but he says ‘you are university students I should not explain to you’.”</i>	Student teacher, Kuwait	Expert and formal authority	Teacher-centred approach	Subtheme 1 under theme 4
<i>“The teacher’s a good communicator, you know, and a good performer.”</i>	Teacher educator, England	Personal model, facilitator	Student-centred approach	Subtheme 1 under theme 4

Table 7.2: Shows the teacher-centred approach to be popular amongst the Kuwaiti sample and the student-centred amongst the English sample.

In contrast, the teacher educator of the Kuwaiti class exhibited a formal style to teaching resonating the teacher-centred approach. In *episode 1 (beginning of the lesson, thesis section 5.5)* he did not engage the student teachers in any conversation but immediately started instructing instead of preparing them for the lesson, as the English teacher educator did. The language of the Kuwaiti teacher educator also reflected a formal attitude; it is professional and straight to the point. This could be due to the role a teacher plays in Kuwait's society, a respected and powerful figure to whom students are expected to show respect and obedience. The multimodal findings from the Kuwait data, which reflect a formal attitude of the teacher educator, relate to the outcome of studies such as Al-Sharaf (2006), which investigated the education of teachers in Kuwait and reported teacher training to be insufficient mainly due to the teacher educators' attitude towards student teachers. Al-Sharaf suggested this attitude revealed a lack of educational practice and theory, because the teacher educators gave little attention to their students in terms of interacting with them or supporting them in becoming aware of the theoretical and practical aspects of teaching. This observation cannot be generalised to all teachers as the findings from the thematic data show that some teacher educators put extra effort in facilitating learning, but due to the lack of teaching support from the management of the Ministry of Education this is an ongoing issue, which is also reflected in the findings of Al-Nakib (2015).

Furthermore, the multimodal data indicates that the teacher was the centre of attention and his attitude reflected that, as he often repeated "pay attention to me", "are you listening?", "pay attention". All of these phrases suggest that the teacher had ownership of the class, and suggest an authoritative relationship. The merits of the teacher-centred approach are debated in the literature. Some researchers defend the approach with the arguments that it transmits knowledge better to students and makes the classroom more disciplined (McAuliffe et al., 2008; Gibson, 2010), whereas other researchers suggest that the teacher-centred approach does not make the students the main focus of teaching but that this approach rather believes in filling empty vessels with knowledge without meaning or attachment (Murdoch and Wilson, 2008). In the Kuwaiti episodes, it could be argued that the teacher taught simple Microsoft Office commands, which made it difficult to create interaction and thus a teacher-centred approach was more appropriate. However, the teacher educator also did not communicate with the student teachers about how the skill of operating Microsoft Office

could be applied in their teaching practice. The study of Microsoft Office could appear to be too simple for teacher education, unlike the observed teacher education lesson in England, which focused on more advanced technology use in education. However, the Kuwaiti thematic data indicates that teacher educators are aware of the importance of communication and their opinions appear to support student-centred teaching.

Teacher educators from Kuwait shared similar thoughts as they defined teaching as an “art” and they added that it depends on the teacher’s attitude how successful he or she is in engaging the students in the lesson. In the interviews, a teacher educator from Kuwait claimed that teaching should be interesting, exciting and should be taught in the form of a story. Based on these attributes, they appeared to be referring to a teaching style similar to that of teacher educators in England. However, from the student teachers the opposite perspective was recorded as highlighted in table 7.2. The data suggested that most of the students were not satisfied with the teacher’s attitude in the classroom. This is similar to the findings of a survey of students in Kuwait in which 80% expressed dissatisfaction with teachers due to lack of rapport (Fattahova, 2013). That student teachers were not satisfied with the teaching of their lecturers was especially evident from the analysis in the present study. The student teachers in England did not show any dissatisfaction with their training, apart from a few student teachers who complained that some of their work placements were poorly resourced in terms of technology.

Another reflection of student- and teacher-centred approaches in the data was how the students addressed the teacher educators. In England, the student teachers addressed their teacher educator by his first name (“Ian”), whereas in Kuwait the student teachers called the teacher educator by his title and then his first name (“Dr Hammad”). In England, it is culturally acceptable for students in higher education to address teachers or lecturers by their first name. This practice is carried out to break down barriers between the teacher and student. At the same time, not all students in England call their lecturers by their first name, especially in the context of higher education. The choice of whether to address the teachers by first or last name depends on how the teacher initially introduced him or herself. The thematic data sheds more light on this matter. Whilst interviewing, the teacher educators in England introduced themselves with their first name, such as Ian and Katy. On the contrary when interviewing the teacher educators from Kuwait, they introduced themselves with their title,

such as Dr Ibrahim. This supports the findings from a UK based study by Formentelli (2009) that students' preference in addressing their teachers or lecturers in higher education mostly depends on how their teachers introduced themselves in their initial meeting.

7.2 Teacher educator's attitude in the classroom

The student-teacher relationship is not only affected by the teaching approach and style; rather, it is a combination of factors, including the overall attitude that a teacher is displaying in the classroom. In the context of the present study, the teacher's attitude is specified to the classroom (as indicated by the data) with respect to how the non-verbal communication, level of discipline and classroom space is used in order to provide a better learning experience for the students. All of these elements appear to strengthen and build the student-teacher relationship in accordance with Desai (2015).

Starting from non-verbal communication in relation to bodily movements (which refer to gesture, posture, action and gaze), the overall bodily movements of the teacher educator in England were relaxed and open, whereas the Kuwaiti teacher's bodily movements were rigid and closed (see multimodal analysis for details of bodily movements, Chapter 5). The findings from England's teacher educator are in line with Desai (2015), who reported in his research on non-verbal communication and teaching performance that through open body language and proximity the teacher can build rapport with the students. The teacher educator in England leaned forward and came to the students' level whilst talking, which suggest that he is attempting to build a rapport with the student through non-verbal communication as highlighted by Desai (2015). This was evident in **episode 1** and **moment 2**, and was similar to the data reported in **episode 3 (classroom exercise)**. The teacher educator modelled teaching to the student teachers through his attitude. Teachers in schools often move to the same height as the child when explaining something the child does not understand, which is considered a good teaching strategy (Cremin and Arthur, 2014). In contrast, the Kuwaiti teacher had a rigid posture; most of the time he stood behind his desk, instructing the students. It appears that the teacher educator in Kuwait used gesture to his advantage as they sent a non-verbal message to the student teachers to pay attention and complete their work on time. The teacher did this by walking slowly around the class from time-to-time, checking

the student teachers' work. Closed body postures made the teacher look powerful; however, his teaching performance may have been compromised, because students learn better with open posture and proximity in the classroom and warmth and friendliness from the teacher (White and Gardner, 2013).

Gaze is also a part of non-verbal communication that portrays attitude. Gaze is one of the common indicators that a person is paying attention and listening, at least in the Western world. In Western culture, eye contact is the main focus of social interaction and indicates whether a person has interest in a conversation. In more formal settings, eye contact portrays how confident a person is. For example, if an interviewee makes eye contact, it is considered to signify self-belief, whereas no eye contact is interpreted as revealing a lack of confidence (Akechi et al., 2013). From a cultural perspective eye contact is, therefore, a manifestation of social interaction in the West. Likewise, the teacher educator in England maintained eye contact with the student teachers and vice versa. The teacher educator would specifically look at the student who was answering a question while glancing at the rest of the class. For example, in *episode 1 (beginning of the lesson)*, a student teacher answered a question and the teacher maintained eye contact while smiling at the other students as well. This practice appeared to be an acknowledgement for the student teachers that the teacher was paying attention.

Although there is evidence that maintaining eye contact with students is part of the information delivery process (Yin, 2013), in some cultures lowering gaze is a sign of respect or eye contact is considered problematic due to gender issues (Moran et al., 2014). In Middle Eastern culture, for example, making eye contact with elderly, significant figures or the opposite sex is considered rude. The rule for gazing in terms of gender issues stems from religious obedience and cultural influences (Akechi et al., 2013). As discussed in Chapter 3, in Kuwait men and women are supposed to keep their gaze down whilst talking to each other. This was observed in the multimodal data as the teacher educator in Kuwait made no eye contact with the student teachers and vice versa.

Furthermore, the use of classroom space comes under non-verbal communication (Goman, 2008). The teacher interacts with the students by how he/she moves around the classroom. The teacher educator in England made use of the space in the classroom to get closer to the

student teachers. This was evident in *episode 1 (beginning of lesson, thesis section 5.5)* and *moment 2 (technology in teacher education, thesis section, 5.7)* which exemplifies similar episodes which are not considered in this thesis due to lack of space. The teacher educator was not static but rather moved around the class and utilised bodily movement to formulate non-verbal communication. In *moment 3*, for example, the teacher educator introduced data branching and utilised all the space in the centre of the classroom to engage the student teachers in the class activity.

Research on modern teaching methods suggests that a classroom should be a learning studio, in which teacher and students can easily move around and that they can utilise for learning (Fisher et al., 2000). This was further evidenced in *moment 4*, where the student teachers in England utilised the space in the classroom to conduct their experiment. The student teachers all sat on the floor and used the space in between the computers to complete the task. In the Kuwait context, the teacher did utilise the space, but it was a combination of standing behind the desk and moving around the classroom with the intention of checking the students' progress on the class exercise. At the same time, the student teachers in the Kuwaiti classroom did not move from their seats and remained still throughout the lesson. It was perhaps justified in the Kuwaiti context that the student teachers were sitting still, because the aim of the lesson was to listen to the instructions of the teacher educator and complete the exercise in the textbook, and the nature of the exercise did not involve movement. This is in line with Al-Ali and Middleton (2004), who report that teaching while standing in one position is embedded in the education culture in Kuwait. It is also perceived by students in Kuwait as a symbol of formal authority. This kind of practice is likely to make lessons boring and promote passive learning as suggested by the student teachers in the thematic data who said that their teachers just stood behind the desk and gave the lecture without putting any effort into communication and engagement. This leads to massive learning, which is believed to result in shorter attention spans, inevitably making it less likely for students to retain information (Klimesch, 2013). This speaks to the present data as the teacher in Kuwait, even though he moved around between class exercises, mainly stood behind his desk to give verbal explanations.

A comparison between the English and Kuwaiti teacher educators and how they utilised the classroom space is conducted in figure 2. The pictures from England and Kuwait are considerably different. In figure 7.1 (England), the teacher educator appears to be encouraging the student teachers to engage with the class activity through his use of space, whereas the teacher educator in Kuwait (figure 7.2) stands behind his desk and verbally explains the class exercise to the student teachers.



Figure 7.1: The teacher educator clearly uses the space in front of the class to demonstrate an experiment taken from moment 3 (teaching style) in England.



Figure 7.2: The teacher stands behind his desk, explaining the content taken from moment 3 (teaching style) in Kuwait.

The teacher educators in Kuwait appear not to build any rapport with the student teachers. The thematic and the multimodal data support this observation, because due to control in the classroom the student teachers in Kuwait were dissatisfied with their teacher educators. This particular aspect from the data analysis was only relevant to the Kuwaiti participants. In the English context it was not discussed by any teacher educator or student teacher, while most of the teacher educators in Kuwait discussed the aspect of control many times (**theme 2, thesis section 6.4**). They said, for example, that in “my class” the students should be disciplined and should not get distracted.

As outlined in Chapter 3, Kuwaiti teachers being rigid and strict in class reflects the early methods of teaching adopted from religious schools. Teachers usually had an arrogant attitude and asserted their power in the classroom. Likewise in the data (**theme 4, thesis section 6.6**), the student teachers from Kuwait claimed that the teacher educator did not appear to be helpful. One student teacher said during the interview (**similar to theme 4, thesis section 6.6**) that the teachers are always in a “rush” to finish lessons. There appears to be a discrepancy between how the teacher educators in Kuwait perceived themselves and how the student teachers perceived them. This again depended on attitude, because the teacher educators believed that their way of teaching and controlling the classroom is the best teaching style; or perhaps it was the only teaching style they were aware of. The teachers considered themselves to be more powerful than the students and thought they had the right to control the students’ behaviour in the classroom. However, in the data (**theme 4, thesis section 6.6**) the teacher educators also complained that they did not receive any mandatory or general training from the faculty or Ministry of Education and one teacher educator claimed that he was teaching in the same style he was taught in. This suggests that the teacher educators did not purposely display a distant and rigid attitude towards the students but that it rather was the result of cultural influences, lack of training or the outdated educational system in Kuwait as discussed in Chapter 3. Al-Hamdan (2007) supports the pattern observed in the present analysis that the problem lies with the management and that due to a lack of training the pedagogical style in Kuwait has remained constant for several decades, especially in higher education.

7.3 Preferences towards teaching and learning

This section addresses the multimodal data about the preferences teacher educators and student teachers have in teaching and learning. In the context of teaching and learning, a teacher or student may have a preference for more than one method. In terms of preference, the multimodal data highlighted mainly the use of traditional versus technological methods in relation to the teaching style in the classroom.

In the multimodal data, a considerable difference between the classrooms in England and Kuwait could be observed with respect to technology and traditional methods. In England, the teacher educator used a variety of modes to present information to the student teachers, unlike in the Kuwait classroom. Both teachers preferred different methods to each other; however, it appears that the English teachers had more choices and options whereas the teacher in Kuwait was limited in resources.

In the lesson in England, the teacher educator talked about different technologies for classroom use throughout the episodes. The delivery of information was in line with the multimodal modes outlined by Jewitt (2008), such as audio, visual and kinaesthetic. In **episode 4 (thesis section 5.6)** the student teachers were introduced to software that analyses the data collected from the experiment. Again they were using visual (graphics) and auditory (the teacher educator giving instructions) modes. The teacher educator in England preferred to use more than one mode of multimodality. This was evident especially during the class experiments as student teachers were provided with visual material to guide them through answering the questions. However, the teacher educator then stopped them and instructed them to listen to him while watching the projector screen. The teacher educator here again used multiple representations, auditory with visuals, to deliver the information to the student teachers.

In the data from Kuwait, the teacher educator preferred the auditory mode of modality to the visual mode. This is not to say that visuals were not used; however, in the overall data there was more emphasis on auditory modes. Throughout the episodes and moments he repeatedly used phrases like “pay attention to me”. He spoke throughout the lesson, whereas the teacher in England gave space and time to the student teachers to complete their work. This suggests that the teacher educator in Kuwait was more focussed on getting information

across to the student teachers through talking. More than one mode of representation was used when the teacher used the Teacher OP software, which allowed the students to observe the activity on the teacher's computer and vice versa. This is observed in *episode 3*, in which the teacher asked the student teachers to pay attention while he verbally explained what he is doing on the computer screen. This was similar to *episode 4* in England, since the teacher there also asked the student teachers to listen while watching the projector screen. This shows that there were some similarities between England and Kuwait, especially with respect to multimodality, such as the simultaneous presentation of material in the classroom through visual and auditory channels.

The preferences for technological methods were further exhibited in the physical characteristics of the classroom. In the English classroom, the walls were decorated similar to a primary school classroom with different displays. The information on the walls had mainly to do with technology. This shows that the university is keen on introducing new technology-based learning to student teachers. Keeping information on display and updating it frequently requires effort and often this is done to motivate or to provide an environment and atmosphere similar to what students are likely to work in in the future. In the case of the present study, for example, the English classroom displayed information on the walls mainly about fieldwork and how student teachers integrated technology during their work placement or university workshops. The teacher educator and student teachers both put this information on the walls, the teacher informed me. The fact that the classroom resembled a primary school classroom, could be a way of helping student teachers to familiarise themselves with a typical teaching environment in schools. The student teachers are likely to be influenced by their environment. The findings from the English classroom are in line with Higgins et al. (2005), who reported that displays were found to be encouraging for the students especially when other students' works were on display, as they were able to learn from students who had already carried out the task. Figures 7.3 and 7.4 show the décor of the university classroom in Kuwait and England. The Kuwaiti classroom is simple with a standard desk, chairs and a whiteboard (figure 7.3), whereas the classroom in England was similar to a typical primary school classroom (figure 7.4). The display in England shows colourful pictures of alphabets for learning phonics, similar to a typical primary school display in England.



Figure 7.3: The classroom walls are plain, without posters or any other information.



Figure 7.4: Shows one side of the classroom wall in an English university.

In contrast, the Kuwaiti classroom was plain. The walls were painted in a dull camel colour with no display or décor. The only item visible was the whiteboard behind the teacher educator's desk. The classroom was an ICT lab, but the learning environment (wall décor, information notice board) did not reflect this. The classroom being plain and simple could be intentional. Kuwait's climate is very hot, since it is surrounded by the desert. This is in line with Garrido et al. (2010). Who suggests that people in Kuwait prefer pastel colours, because

they do not absorb as much heat as many pigmented colours. However, studies indicate (Al-Hamdan, 2007) that Kuwaiti students in higher education want change in their learning environment and they would prefer classrooms with attractive and engaging physical characteristics.

7.4 Conclusion

The first research question (*what are the perspectives of teachers and students with respect to the student-teacher relationship and multimodal teaching and learning?*) aimed to compare the teacher educators' and student teachers' perspectives on teaching and learning. The research question was investigated through the themes of the student-teacher relationship and preference. The two data sets, multimodal and thematic, shed different lights on the aspects under discussion. While they showed differences between England and Kuwait, some similarities were also discovered.

There were significantly more differences than similarities. With respect to *attitude*, the English teacher educator acted informally towards the student teachers. The atmosphere of the class was friendly and casual and while the teacher educator led the class, he facilitated the student teachers' learning at the same time by actively involving them in the class activities. In Kuwait, the teacher educator was formal and professional with the student teachers and did not form any interaction with the student teachers, instead employing a one-way communication method throughout the lesson. *Preference* showed similarities between England and Kuwait as the teacher educators and student teachers in both countries preferred a mixed method approach for teaching and learning. They chose a mixed method, because it was a hybrid of the best qualities from conventional and technological teaching methods. The teacher educators, for example, preferred visuals but simultaneously gave auditory information to the student teachers, so they could develop better understanding.

The next chapter focuses on the second research question, which concerns technology in teacher education. The findings from this chapter will shed light on the current practice of technology training in teacher education in England and Kuwait.

Chapter 8: Perceptions of technology and education

The aim of this discussion chapter is to address my second research question: *what are teachers' and students' perceptions of technology-enhanced learning and its perceived problems?* This research question is in line with one of the aims of the present study, which is to explore teachers' and students' perceptions of technology in education and highlight perceived problems in England and Kuwait. This chapter is divided into two main parts. The first is about teacher educators' and student teachers' perceptions in relation to technology. The second explores the challenges with respect to technology experienced by the participants of this study.

The first part is divided into two sections: teacher educators' perceptions of technology and student teachers' perceptions of technology. The first section looks at how the teachers integrate technology in their teaching in England and Kuwait. The multimodal data illustrated the types of technology both the teacher educators in England and Kuwait were using, which was beneficial for comparison purposes. The thematic data added a lot more depth to the reasoning given by the teacher educators of their perceptions of and assumptions about technology. The student teachers' perceptions, in the second section, highlighted the way student teachers make use of technology for both personal and professional learning. Although it was important to explore differences between the students and teachers, it was difficult to justify the perceptions of student teachers towards technology through multimodal data as they were not verbally expressing their opinions, which is why for this section most of the data comes from the thematic data.

The second part of this chapter is about challenges related to technology in teaching and teacher education. It makes a comparison between England and Kuwait with respect to the types of problems teacher educators and student teachers are currently experiencing. This section is also divided into two sections: teachers' negative attitude and generation gap. The first section, teachers' negative attitude, is mainly based on data from Kuwait, because the data from England did not bring up this problem. The student teachers in Kuwait identified the teaching style and rigid attitude in the classroom exhibited by the teacher educators to be a reoccurring problem. The reasoning and explanation behind these problems from the perspective of the student teachers became apparent from the interview data.

The second section addresses the perceived generation gap (which is explained in detail in section 2.4). As existence of a generation gap was difficult to gauge through the multimodal data, only thematic data were used to explore this phenomenon for both England and Kuwait. The chapter ends with a conclusion that highlights the main findings of this discussion.

8.1 Teachers' use of technology

The data from the multimodal and thematic analyses both brought up similarities and differences between the perception and use of technology by teacher educators in England and Kuwait. The literature on technology and education reviewed in Chapter 2 indicates that technology has become an important part of teaching as well as learning (Anderson, 2014; Lever-Duffy et al., 2005; Januszewski and Molenda, 2013). This literature does suggest that technology facilitates teaching, but it is yet uncertain whether technology enhances learning. This perspective, as well as how teacher educators use technology and integrate it in their teaching and learning, is examined below.

According to Okojie and Olinzock (2013) teaching is not about instructing students and making them into living libraries; rather, it is a process of engagement, just as knowledge is a process and not a product. Technology should be used to engage students in the activity and facilitate students to think independently about the task at hand. Likewise, data from England, especially in *episode 1 (beginning of the lesson)*, *episode 4 (lesson closure)* and the example from *moment 2 (technology in teacher education)*, showed that the teacher educator strategically used technology to teach and engage the students in attaining subject knowledge through carrying out independent learning. The student teachers learned about science (light gate experiment focusing on light speed) and maths (statistics through computerised software) and the teacher educator attempted to relate the technology to the context of the student's training. For example, the equipment used to conduct the experiment was designed for children, which purposely prepared the student teachers for their practical work with the children in school later on in their teaching careers.

Technology appeared to be assisting the teaching process in the lesson in England, because the teacher educator engaged the students in the activities through the use of tools such as the projection screen and computers to upload or download information. This form of

teaching includes visual representation of the information, which is similar to the modes of multimodality. The integration of visual representation and verbal explanation of the content by the teacher educator in England appeared to engage the students in the class activity, while the activities themselves were also engaging, because they were designed to create interaction between student and teachers.

Research suggests that technology promotes independent learning and gives more control to students (Wardlow, 2014). This was observed in the present multimodal data, when the teacher educator left all the information on the projector screen for the student teachers to refer back to if required. This is an example of independent learning, because the teacher did not go to each student individually; rather, all the information and material was left on the screen where all the students could access and share it. In this example of independent learning, however, it really is the teacher who creates the individualised experience of learning for the students, not the technology. It was the teacher educator who placed the information on the projection screen and then enabled the student teachers to understand it. This implies that technology does assist in teaching, but that it is the teacher who facilitates the learning (Laurillard, 2013b). Similarly, learning can be achieved with books as well as technology, which again indicates it is the teacher that creates the individual experience, not the technology.

Another example of teachers' contribution to facilitating learning came from ***episode 1 (beginning of the lesson)*** of the multimodal data. The teacher educator in England began to talk about technology by asking the student teachers if they were aware of some of the technologies he was about to teach. This could be considered a good teaching practice, because mapping the students' knowledge prior to teaching allowed the students to mentally prepare themselves for how much effort is required for teaching and transferring knowledge.

Technology is perceived to have brought a positive change to teaching (Higgins et al., 2012). Thorsteinsson (2012) suggests that integrating technology in teacher training helps to bridge the gap between student teachers and teacher educators. The reasons given are that it encourages collaboration, a student-centred approach and makes the teaching process more engaging. The multimodal data from England showed that the student teachers learned about the technology use in their school placements. This is evident in ***episode 1 (beginning of the***

lesson), in which the teacher educator asked the student teachers if they had been using their iPads, which they previously learnt about in class, in their placement schools. This is in line with the findings of Tondeur et al. (2011) mentioned in Chapter 2, which suggest that technology creates a positive relationship between teacher educators and student teachers. For example using an iPad allowed student teachers to record useful information during placement and share it with the teacher educator for learning purposes.

In England, the teacher educator also used multiple modes of presenting information through technology in the classroom. With the projector, for example, the teacher educator showed different visuals to the student teachers. Using more than one modality in the classroom is considered positive from both a theoretical and practical perspective (Kress and Van Leeuwen, 2001; Sankey et al., 2012).

In contrast, in Kuwait the multimodal data did not show variety in the use of technology. There was no use of a projector to make the information accessible to the students. However, the teacher educator did use the Teacher OP program, with which he connected his computer to all the student teachers' computers to show them how to follow the instructions, and monitor them. The difference between England and Kuwait is perhaps that the teacher educator in England used technology to engage the students in the class activities and lead them towards working independently, whereas in Kuwait the teacher used technology purely to give instructions. Images of technology used in England and Kuwait are presented in figures 8.1, 8.2, 8.3, 8.4 and 8.5, which indicates a clear difference. The technologies used in England are advanced and appear relatively up-to-date, such as the iPad and experiment equipment. In Kuwait, however, the classroom shows no sign of any technology and in the second picture the students are using standard desktop computers.

Images from England

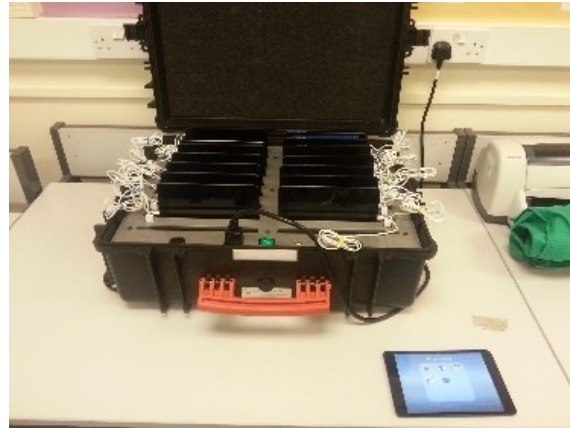


Figure 8.1: iPad storage device for students to work on in class or at placement.



Figure 8.2: Voting remote controls ('clickers') used in schools and in teacher training programmes for teaching and learning purposes.

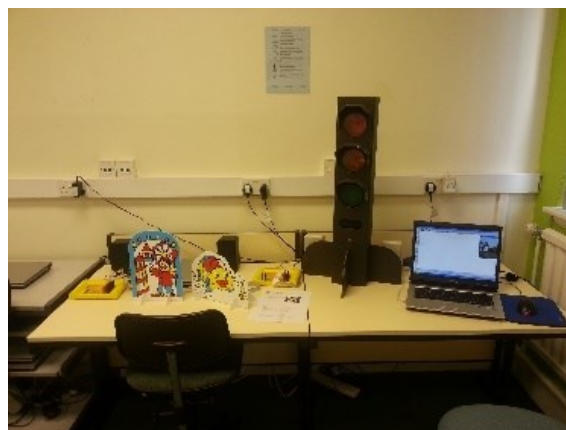


Figure 8.3: Equipment for the traffic light gate experiment for primary school children.

Images from Kuwait

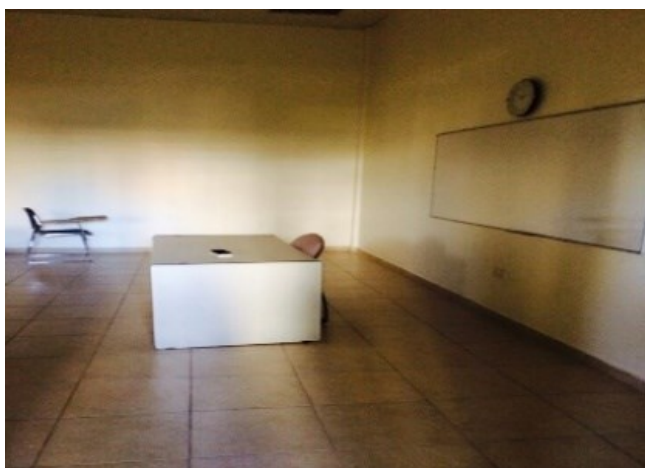


Figure 8.4: Typical classroom in PAAET.



Figure 8.5: Computer lab in PAAET.

In terms of the teacher educators' actual use of technology in the classroom, the multimodal data showed limited use of technology in the Kuwaiti lesson. The student teachers were, for example, using text books to complete the class exercise and the teacher did not use technology to interact and engage with the student teachers, as the teacher educator in England did. The teacher educator in England perhaps put more emphasis on using technology, because the student teachers needed to apply the skills and knowledge of these technologies and gadgets in their work placements. While there are many schools in England that have insufficient access to technology, in Kuwait access to technology is even more

limited at almost all public schools. Perhaps therefore, the teacher educator in Kuwait paid less attention to technology, because it is little used in Kuwaiti school classrooms (Al-Rashidi, 2009).

Literature also suggests that not all teachers in Kuwait are ready to accept change (Al-Nakib, 2015). Although the higher education policy of the Ministry of Education encourages teachers to use a variety of methods in teaching and integrate technology, there appears to be little implementation of this policy. This suggests that the policy makers are fulfilling their role in terms of making internationally compatible policies, but the teaching staff and faculty members are not following these policies, since there is little or no enforcement of the policy.

Conversely, in England the teaching standards are monitored by regulatory bodies such as the Quality Assurance Agency for Higher Education (QAA). These organisations update the policies on teaching standards as well as on use of technology and, in line with the government, monitor the implementations of the policies. The QAA, however, was decommissioned in 2010, as it was not intended to be a regulatory enforcer. The Teaching Excellence Framework (TEF) is being proposed as a replacement of the QAA and other authorities such as the Higher Education Funding Council for England, to monitor the teaching standards in education (QAA). In the Kuwaiti context the standards and guidelines are provided by PAAET and the Ministry of Education itself. However, teachers do not follow them, which implies a lack of effort towards improving the education system from both the teachers and policy makers (PAAET, 2015; Al-Nakib, 2015). Policy makers are responsible for ensuring that the institutes adhere to the policies and action plans designed to maintain teaching standards. Further reasons behind lack of implementation could include the Ministry of Education being reluctant to accept change in the current education system; studies indicate there is a lack of expertise on bringing change in, possibly due to the lack of inspection and interest in creating change (Al-Nakib, 2015, Al-Harbi, 2014). Therefore, there currently is a governmental level UK-Kuwait joint steering group that aims to bring change into the education system by updating the curriculum and providing technology and other resources to facilitate teaching and learning in Kuwait based on the developments in the UK. This steering group appears to be necessary, because the teachers in Kuwait lack training, knowledge and motivation (Cambridge International Examinations, 2008, see Appendix 4).

The thematic data contributed a lot of information on the perspectives of teachers on technology. Two major topics stood out: the benefit of technology and mixed methods for teaching. The thematic data gave the reasoning behind the choices teacher educators and student teachers make for teaching and learning purposes. Transcripts from the thematic data gave an insight in the similarities and differences between the views of the study participants from England and Kuwait on the integration of technology in traditional methods of teaching and learning.

To start with similarities, some teacher educators in England and Kuwait described various benefits of technology. In England, the data from both teacher educators and student teachers indicated that technology is perceived to make the teaching of most subjects interesting; or, in the words of the teacher educator, 'motivational', 'exciting' and 'engaging'. The data further indicated that teacher educators in England felt that technology makes learning accessible, because through technology a teacher could use not only information available online but also information available through gadgets. For example, through online resources such as e-libraries the teacher can lead the students to explore a topic in-depth, because the information is readily available in the classroom; more so than when they have to physically go into the library to search for the same information. These technological developments are making learning more accessible, which is perceived to have a positive impact on academic performance (Freeman et al., 2013).

However, disagreement was found amongst teacher educators from England with respect to the relationship between technology and performance. One of the teacher educators in the data suggested that technology assists the teaching process, while another teacher educator claimed that technology does not 'positively' contribute to the student teachers' academic performance. Rather, this teacher educator believed that it was a student's attendance and traditional homework and revision that helped to lift the grade achieved. This opinion is supported by existing literature, which indicates that academic performance is mediated by class attendance (Credé et al., 2010). A study by the Organisation for Economic Co-operation and Development in fact reported that students who use technology excessively tend to perform worse in exams than students who use technology in moderation (OECD, 2014). The

report also suggests that high-tech devices in schools are widening the socioeconomic gap between students of different economic backgrounds, because not all schools and children can afford access to iPads, tablets and iMacs. Therefore, traditional methods such as revising with revision books should be stressed in schools instead of encouraging children to save their work on an iPad (Coughlan, 2015b). However, another study (Barber et al., 2011) found that online software and tools improve students' motivation and exam results. This discussion shows that like the opinions of the teacher educators in England, the literature disagrees on whether technology enhances learning or is inconclusive. Clearly, more research is needed in this area to clarify the relationship between technology and student performance.

Benefits of technology were also observed in Kuwait, as the data indicated that social media assisted the teacher when the class was large; he gave the students Facebook or Twitter as a medium to communicate with him and amongst each other. Social media was used by four teacher trainers in Kuwait; however, the integration of social media in teaching was not part of the curriculum. Instead it was a personal effort of these teachers to enhance the learning experience of the student teachers. Teachers and students at Kuwait University and in the English university chosen in the present study also used Moodle software. However for Kuwaiti teachers, the implementation and use of Moodle was a personal effort. Moodle enabled the teachers to import learning materials and students could upload homework and assignments to it. These examples suggest that the teachers exerted personal effort in Kuwait, because they received little or no support from the university faculty. The Kuwaiti teacher educator used similar words to the teacher educator from England when he said that technology helped to 'engage' and 'motivate' the student teachers. Although the literature suggests (Al-Nakib, 2015; Al-Harbi, 2014) that teachers in Kuwait appear reluctant to change, from the thematic data it was evident that few teachers showed passion for improving teaching standards and therefore attended training at their own expense.

Research suggests that technology facilitates the teaching process (e.g. Wiske and Breit, 2013), exemplified by the teacher educator in Kuwait who used Twitter to encourage students to post their questions. It was, however, questionable whether this exercise enhanced learning for the students. Technology for the purpose of education makes learning accessible, but excessive use of technology, especially through social media, can be a distraction. On the other hand, Lederer (2012) argues that social media in the classroom increases

communication between students and teacher and enables the teacher to engage students in the class, which promotes self-esteem, because students who have less confidence may feel more comfortable with communicating online. Lederer's work is in line with the thematic data gathered from the teacher educators in Kuwait as they claimed that students participated and raised questions through social media during a lesson. These findings are further supported by Tess (2013), who suggests that learning with social media is a flexible and mobile method. It can be done from anywhere, because the students can contribute to the discussion through Twitter or Facebook from outside the classroom, as suggested by the teacher educators in Kuwait. However, the data from the English teacher educator's indicated that social media can divert students from using technology for learning. This particular finding relates to the work of Gikas and Grant (2013), who reported that one of the main disadvantages of learning with social media is a lack of control of the teacher over the students

On one point, the teachers in Kuwait perceived a very different benefit of technology than the teachers in England. In a number of places in the data, the teacher educators perceived technology to be a tool that controls the behaviour, concentration and attention of the student teachers. The teacher educators implied that they were able to control the students by connecting their computer to the students' computers with the intention of monitoring them and their performance in class. As discussed previously, in the Kuwait educational system religious ideology is intertwined with education (more details are given in Chapter 3, section 3.2). The associated authoritarian and teacher-centred teaching style, alongside factors such as a lack of resources and ineffective management of faculties, has an impact on students' levels of knowledge and competency. These issues discussed by the teacher educators in Kuwait are reflected in Kuwaiti students performing below the international standards set by the Trends in Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS) (Martin et al., 2007). The evidence that the aforementioned factors affect student performance comes from multiple studies that suggest students perceive that they are not satisfied with the teaching in higher education, because they declare their learning to be insufficient for future employment, particularly due to the traditional methods of teaching (Fattahova, 2013; AlShatti, 2006; Al-Nakib, 2015; Al-Shammari and Yawkey, 2008). The students at Kuwait University and studying at PAAET have

in these studies voiced their opinion that low academic performance amongst Kuwaiti students is a result of culturally influenced teaching and an outdated curriculum. The data speaks to the literature, because the teacher educators implied in the interview that student teachers do not feel confident due to lack of knowledge, which is a result of an outdated curriculum and teaching style.

This is again reflected in the study by Aldhafeeri and Male (2015), who found that in Kuwait's College of Basic Education student teachers expressed that the teacher educators mainly used a lecturing style of teaching. They preferred to talk and expected the students to listen and follow. Teacher educators, by PAAET's codes of teaching, are expected to help student teachers in mastering skills related both to the practical and theoretical aspects of their training. The teacher educators are expected to teach using mixed methods. The data from Kuwait, however, indicated that student teachers do not always receive teaching that meets the standards of the PAAET codes. The main reason behind this is that teachers in higher education in Kuwait create their own rules, structure and management in their classroom (Al-Hamdan, 2007), which is a distinct difference between England and Kuwait in the context of the present data (further details given in Chapter 3). However, there were also differences between the teacher educators in Kuwait, as some (including during the observed lesson) used technology for control while others described using it to engage the students in the class activity and to share information. For example, the Moodle platform was used for uploading work, sharing teaching material and supporting communication between teachers and students.

Mixed methods seem to be perceived similarly by teacher educators in England and Kuwait. The teacher educators in England claimed that there is nothing wrong with traditional teaching methods as long as the teacher is a good 'performer' in the classroom. It is difficult to empirically judge who is a good teacher, as every teacher has his or her own philosophical stance. Teachers are influenced by their own training and intrinsic beliefs, which have an impact on their teaching (Chen and Jones, 2007). Likewise, a teacher interviewed in Kuwait commented that a chalkboard is a great invention and that using technology alongside it makes teaching convenient. This is in line with findings from Ghaith (2013) that mixed methods in Kuwait help students to engage and interact much better than traditional methods alone. Unfortunately, research from Sayed and Baker (2014) suggests that

implementing mixed methods in Kuwait is likely to be challenging. This is due to many reasons such as lack of infrastructure, because technology is not up-to-date and there is no support system of ICT specialists responsible for maintaining and monitoring the university's technology system. This leads to another barrier, which is fear of technology; staff at Kuwait University resist technology, because it is new to them. This is further related to assessment difficulties as some teachers find it difficult to use online tools to mark or upload assignments and give feedback. Finally, there is a lack of research; for example, evidence of the effectiveness of mixed methods is not available to convince higher management that it should invest in them.

This indicates that some challenges have been identified, but that still more research is needed, especially with respect to solutions that show consideration for the particularities and culture of the Kuwait education system.

8.2 Student teachers' perception of technology

This section reflects the thoughts and opinions of student teachers on technology for teaching and learning purposes. The thematic analysis of interview data was able to provide insight in the reasoning behind student teachers' preferences for mixed methods or solely technology-based methods for teaching and learning.

There was evidence in the data from England that the students believed that technology facilitated the process of learning, especially in relation to their practical teacher training. According to **theme 1 (multiple modes of representation)** and **theme 2 (mixed methods)** of the thematic analysis, student teachers in England associated technology in their training with using gadgets such as iPads at their work placement. Student teachers also perceived technology to be engaging and motivating in the classroom for learning. Likewise, in Kuwait student teachers found technology attractive and engaging for learning, but most participants complained of the lack of technology available in the classroom. However, student teachers in both England and Kuwait favoured mixed methods as their method of learning, which was also observed in the multimodal data.

In England, student teachers used their experiences with technology at university in their work placement in schools with children. The data indicated that student teachers were able to form relationships with the children through technology. For example, three student teachers said that they were able to make a phonics game and play it with children to form a relationship and create interaction between themselves and the children. The student teachers also designed games that would appeal to children, such as a treasure hunt or games with animals that the children find attractive and engaging. The student teachers from England said that their activities would be video recorded with children playing or doing role-plays at schools while being on placements. Recording class activities is beneficial as the video can be saved for the children to see the improvements in their performance afterwards. This practice is also beneficial for the student teachers, as watching the performance back helps them to reflect on their own practice in terms of strengths and weaknesses. This relates to the work of Ortlieb et al. (2015) who state that in teacher education video recording has become a popular tool for reflection and assessment, because recording allows the student teacher to save, watch and critically evaluate the person in pursuit of improvement. Similar findings were reported by Sang et al. (2010).

In Kuwait the student teachers did not speak of technology in relation to work placements, since there is currently a shortage of formal work placements for student teachers in which they can actively participate in teaching children. The student teachers did have a final project in schools, but they were only allowed to observe and not to participate in any teaching activity. Additionally, this project only lasted two weeks, which is too short a time to understand the practical side of teaching well. However, the Kuwaiti student teachers participating in this study suggested that technology attracts them and many showed awareness of it. For example, one of them argued that technology allows student teachers to critically evaluate the topic the teacher educator is teaching, because online materials (journals, e-books and YouTube videos) can explain different aspects of the same topic. However, others student teachers said that some teacher educators used little technology in the classroom and that the main focus was on lecturing. One student said: "We can't watch any videos; we only listen to the teacher", which suggests that the teacher educators in Kuwait University mainly relied on an auditory mode of teaching. The teacher educators used technology as a medium to control the student teachers and according to the multimodal

data the students' teachers did not use any other technology apart from what was directed by the teacher educator. However, the thematic data indicates that student teachers hired personal tutors outside university in order to learn aspects not made clear by their university lecturers. One of the participants from the Kuwaiti sample said the private tutors explained the use of technology in relation to the course that the student teachers are studying. Also in private tutorials, the student teachers were given the chance to ask questions and go over material they are unsure of, whereas at university some lecturers use technology for the purpose of observing the students. This ties in with the teachers' perception of technology as mainly being a tool to control the students (see section 8.2). Although these findings cannot be generalised from the thematic data of this study, previous research does support the finding that teachers in Kuwait lack the understanding of how to relate technology to learning, especially in higher education. (Aldhafeeri and Male, 2015; Buarki et al., 2011a). Technology has become an essential tool in contemporary education worldwide, especially at work placements, and employers prefer to hire individuals with at least a basic to good knowledge of different technologies (Garrido et al., 2010). However in Kuwait, as highlighted by Al-Nakib (2015) and findings from the present study, teacher educators and student teachers from Kuwait especially implied that they believe their education system is trapped in a traditional era of teaching and is developing at a slow pace due to ineffective implementation of policies (for more detail see Chapter 3 section 3.2).

In terms of similarities, the student teachers and teacher educators from England and Kuwait both preferred mixed methods over traditional methods. The student teachers in both countries claimed that using technological and traditional methods made the learning process accessible. One of the Kuwaiti student teachers, for example, said that taking notes in a notepad while the teacher is lecturing helped her to understand the information better. Similarly, a student teacher from England indicated that she used mixed methods for personal learning; she utilised the iPad to take pictures but also brought a conventional notebook to make notes, which again helped her to better understand the information. This data supports the findings from the literature review that students favour the convenience of learning with mixed methods and the availability of a variety of resources (Poon, 2013). However, the implementation of learning with mixed methods may be difficult in Kuwait University, because the observations from the multimodal data and student teachers' claims in the

thematic analysis, indicate that teacher educators tend to use more traditional methods in Kuwait. Yousef (2013) explains that due to its outdated curriculum and poor management it is difficult for lecturers to adopt mixed methods in the classroom, which again was mentioned by a few of the student teachers and teacher educators from Kuwait in the thematic data. The university would first have to hire individuals that specialise in mixed methods teaching and then organise training for the current lecturers on how to integrate mixed methods into their teaching. Research also suggests that some teachers do not integrate technology into their teaching, because they believe their subject does not relate well to technological methods (Al-Hageri, 1989). This was evident by the statements of some English and Kuwaiti teacher educators in the thematic analysis who claimed that use of technology varies in relation to the subject being taught. Especially the English teacher educators further implied that use of technology appears to depend on the perceptions of the teacher: a teacher who prefers technology is more likely to use it in class than a teacher who does not prefer technology (Rogers and Finlayson, 2004). This ideology is observed in the Kuwaiti data by student teachers and teacher educators, because the influence of culture and reluctance to change has impacted their perception of technology. Moreover, in a broader respect the Ministry of Education is highly influenced by culture and religion as suggestion in Chapter 3, which is likely to affect the entire education system, including the perception of teachers. In the Kuwait data, this is one of the main reasons given by student teachers and teacher educators. Although the Ministry of Education plans to introduce technology rapidly in the coming years, observing the analysis of the present study it is likely that the change will bring challenges. In terms of reasons for lack of technology in Kuwait, cultural factors may play a role, as the Ministry of Education is highly influenced by cultural, religious and political factors with respect to the lack of technology

8.3 Challenges in the use of technology in education

This section examines the challenges the study's participants face with respect to the use of technology in education. The first section examines the reasoning behind the problems student teachers encounter with respect to teachers' attitude, in Kuwait. The second section explores any perceived generation gap exhibited by the participants of both countries and whether it is a problem in the use technology for teaching and learning purposes.

8.3.1 Teachers' negative attitude

The multimodal and thematic analyses relating to the Kuwaiti data indicate that the teacher educators' attitude was perceived as a problem by student teachers. Kuwaiti student teachers appeared dissatisfied with their teacher educators and this section aims to examine this issue in light of the data from the present study as well the existing literature explored in Chapters 2 and 3.

The multimodal data from Kuwait suggests that the teachers' attitude with respect to using technology for the purpose of controlling students is a problem. The teacher in Kuwait did not interact with the students, which was likely to make learning passive. The Kuwaiti multimodal data did not indicate any problems in the teacher educator's attitude towards technology, but the teacher educators in Kuwait were teaching very basic technological skills. The teacher did not indicate the practical use of Microsoft Office in relation to teacher training. This showed that the teacher's attitude towards teaching technology is to just deliver the knowledge about the functions of the technology rather than to enthuse students.

Multimodal data showed that the attitude of the Kuwaiti teacher educator towards the students was strict and harsh. In **episode 4 (lesson closure)** on three occasions the teacher educator became angry. First, the teacher said to one of the students that two marks will be cut off for any student that submits late: "I will cut two marks for anyone who submits even five minutes late." The second time, the teacher caught one student using her mobile phone and angrily said that in "my class you cannot use a mobile." The teacher got angry for a third time, because a student had forgotten her USB stick. He did not allow the student to justify herself; instead he ignored her explanation and said "you always forget", whereas the student said "it's the first time I forgot the USB". The teacher's anger showed through his body language as he adapted a closed body posture and raised his voice in a firm tone. The teacher educator here was firstly using negative reinforcement by punishing the students if they submitted late. He emphasised that it is "[his] class" and ignored any explanation given by the students, which showed that the teacher had the power and authority to hold this negative attitude. Here, the teacher educator asserted his personal authority over "my class", where only his rules apply, rather than the rules of the department of the institute. This is likely to

create an inferiority complex within the student teachers, which maintains the unequal relationship between student and teacher found to exist in Kuwait (Calderwood, 2011). As explained in Chapter 3, this stems from religious and cultural influences on education that do not allow students to question the teacher, because the teacher is assumed to always be right (Al-Nakib, 2015; Al-Harbi, 2014). Unfortunately, this attitude to teaching is likely to continue, because the future teachers (the current student teachers) are inclined to mirror him or follow similar teaching habits.

The same teacher-centred model of teaching was described by the student teachers and reflected in the teacher educators' quotes in the Kuwaiti thematic data. In the data the student teachers identified two aspects of the teacher's attitude as a challenge with respect to technology: the different types of teachers and teachers' expectations of university students.

The student teachers in Kuwait considered teachers' attitudes towards technology as a challenge, because the teachers used little technology while teaching. The teacher educators who claimed to use social media in the classroom did so because of a personal effort of the teachers as the university faculty provides little or no training for lecturers. However, some of the teacher educators in Kuwait claimed that using social media in the class diverted the students' attention. This ties in with the findings from Al-Menayes (2015) who suggest that although social media and Moodle may have been used as learning tools, many students also misuse social media in a classroom as it can be used for 'socialising' rather than learning and there is a link between social media use and poor grades. This appears to be one of the reasons why teacher educators use tools to observe and monitor the students throughout the lesson.

The second problem indicated by the data in Kuwait was the expectation the teacher educators have of the student teachers. From the data it has been inferred that teacher educators expected student teachers to have a certain set of skills and knowledge, because they were higher education students. These findings relate to the quotes from Kuwaiti student teachers in table 8.1, which shows quotes from the Kuwaiti thematic data in relation to this issue. The table brings out a clear contrast between the students' experiences of their teachers' teaching and teacher educators' views on their teaching and methods.

Quotes from student teachers (Kuwait)	Integration of technology in teaching	Quotes from teacher educators (Kuwait)
<i>"Technology makes students creative, but we have to listen all the time and we can't watch relevant video clips, which I would like to see in our lessons. I would like to participate in a class discussion." Aysha</i>	Technology as a tool	<i>"I have a hashtag on Twitter; I project on the board and if any student has a question, he/she sends it through Twitter and it will be projected automatically on the board. If I feel that the question is important, I stop the lecture and answer the question." Dr Ibrahim</i>
<i>"The difficulty that I face is that the teachers only talk and there are few alternative ways of teaching." Husna</i>	Technology as a method	<i>"I can control and monitor them through technology; therefore, they will pay more attention to what I say." Dr Faisal</i>
<i>"We only receive lectures and at times it is impossible to take notes and listen to the teacher at the same time." Sumia</i>	Technology in teaching style	<i>"All in all, the use of technology is better for delivering the information to the students in a faster and accurate way." Dr Ali</i>

Table 8.1 Shows a difference between student teachers and teacher educators' perceptions on technology in Kuwait.

8.3.2 Perceived generation gap

The data from the present study supported the existing evidence that classifies the digital native and immigrant theory as a myth. Prensky first coined the terms digital natives and digital immigrants, which have now been discredited by many theorists, including Prensky himself. However, a generation gap in the world of technology and education has become a popular topic, especially in research (Prensky, 2009; Wang et al., 2013). As suggested in Chapter 2 and 3, the concept of a generation gap does not hold any empirical bearing, because using technology is simply a matter of practice, training and knowledge (Kennedy, 2008). It is rather superficial for researchers to label the youth of today as digital natives and people who were not born in the era of smart phones to be digital immigrants. Guo et al. (2008) suggested

that the thought of the digital divide that is perceived to exist between “natives” and “immigrants” in education and academia may be misleading and distract education researchers from more careful consideration of the diversity of ICT users and the nuances of their ICT competencies. Recent studies provide similar findings (Smith et al., 2013).

The data from both England and Kuwait suggested evidence against the digital native and immigrant theory. A mature student teacher from England, for example, suggested that she did not grow up with technology, however this ideology did not stop her from learning technology; with some practice she now teaches how to use iPad to her peers. This supports the evidence against the concepts of digital natives and immigrants, because it showed that with practice mature students can learn to use technology for teaching and learning purposes (Guo et al., 2008).

Similar perceptions were observed in the participants from Kuwait. A student teacher claimed that some older teacher educators were reluctant to use technology in the lesson but with practice and training were able to use it. However, there were a few student teachers from Kuwait who suggested that some teacher educators were hesitant in using technology, because they were comfortable using only the traditional methods. This perhaps has more to do with preference than labelling someone as digital immigrant or digital native. This relates to the findings from Kennedy et al. (2008) that the term digital native is over-simplified and in reality it does not exist. The use of technology is related to preference, availability, access, training, culture and education influences. Other researchers, such as Keith Smyth, also agree with the work of Kennedy et al. (MacNeill and Johnston, 2015).

Another aspect of the perceived generation gap is how the younger generation uses technology. One of the teacher educators suggested that the skill of using Facebook cannot be compared to the skill of using technology to support learning. Therefore Prensky’s theory cannot be generalised to a wide population without empirical support. Based on the present findings, the concept of digital natives appeared to be a theory with little value (Mason et al., 2008). Jones and Shao (2011) claim that due to the evolution of technology, the theory of digital natives appears to have strong face validity, but that the concept has been blown out of proportions and has become commercialised. This concept is, for example, taken advantage of by educational institutes that attract students by claiming that they have the

latest technology to meet the young students' needs, whereas empirical studies (as outlined in section 2.4 in Chapter 2) suggest little or no relationship exists between being a digital native and a preference for a technology-based learning style.

8.4 Conclusion

The aim of this chapter was to explore the perceptions of student teachers and teacher educators in relation to technology and perceived challenges in England and Kuwait. The data from the multimodal and thematic analyses showed similarities and differences between England and Kuwait. Both the teacher educators and student teachers viewed technology as a beneficial addition to their teaching and learning. For example, participants of both countries claimed that technology makes knowledge available, because material can be accessed more easily through online resources. Another similarity between England and Kuwait was that both student teachers and teacher educators preferred mixed methods, because it allows the integration of technology and traditional methods together. A distinct difference between teacher educators from both countries was that, unlike their counterparts from England, the teacher educators in Kuwait saw technology as a tool for controlling the students. Literature suggests that this teaching method stems from the cultural and religious ideologies embedded in the Kuwaiti education system. A recent report by the Ministry of Education proposes many changes by the year 2030, but progress is slow and more time may be required to untangle education from religion and other associated factors (Saeid, 2010). Although the Ministry of Education plans to invest in the education system, there is no guarantee that an organised and well-managed education system will be put into place. The ministry's 2030 report also places more emphasis on investment than the process of ensuring quality of teaching, technology and resources for teachers and students (Al-Nakib, 2015).

In terms of challenges, again similarities and differences were observed. The multimodal and thematic analyses showed that in Kuwait the teacher's attitude was problematic. In particular, the thematic data suggested that the student teachers were dissatisfied with their teacher educators. Similar findings emerged for both countries in relation to the discussion of a generation gap in the thematic data. Participants from both countries believed that a

generation gap did exist at university between teachers and students. However, the participants did not support the digital native theory as they believed both young and mature students and teachers were able to learn technology with practice.

In conclusion, the second research question (*what are teachers' and students' perceptions of technology-enhanced learning and its perceived problems?*) reveals the dynamics of cultural influences in Kuwait's education and how and why they create problems in current teacher training. Appropriate practices from England could be applied in Kuwait, provided they are measured carefully against a cultural and religious analysis of Kuwaiti education, which will be discussed in the next chapter.

Chapter 9: Application of English teaching practice in Kuwait

The third research question is: *are any multimodal pedagogic practices from England appropriate for Kuwait's College of Basic Education (PAAET)?* This question aims to answer whether there are any pedagogical practices from England that can be applied in teacher education in Kuwait, with consideration for the cultural differences. This chapter is divided into three main sections: work placement, integrating technology in the teaching curriculum, and learning theories, strengths and criticisms. In this chapter the multimodal and thematic data are brought together to enrich the parallel comparison of England and Kuwait. This was necessary for the present chapter, because its aim is to highlight aspects of the data from England that can be used as evidence to improve pedagogic practice in Kuwait. The existing literature as mentioned in Chapter 8 and the data from the present study identify that teaching practice in Kuwait needs to be improved. Therefore, referring to both multimodal and thematic data was imperative.

9.1 Work placement

In England, work placements are part of the curriculum from high school on. Students finishing high school have been required to attend a two-week work experience since 2007 (UK Commission for Employment and Skills, 2014). This work placement introduces young people to employment. College or university students may also have work placements, depending on the course they are taking. Students enrolled for postgraduate teaching qualifications have to complete two-thirds of their degree at placements; without completing this requirement the student cannot attain the qualification. Until recently the main route to becoming a teacher educator in England was through university; however, in 2013 the School Direct route to a teaching qualification was introduced (Beauchamp et al., 2015b). These routes are explained in detail in Chapter 3.

As expected, based on the relevant policies and literature, the student teachers and teacher educators in England appeared to emphasise work placements with respect to reflecting on the practical teaching whilst acknowledging the theoretical background taught in university. The participants of the present study in England were enrolled on a course called a PGCE (Postgraduate Certificate in Education) and the student teachers went on placements related

to their subject specialisation. Some students, for example, went to early years' settings and others to schools for special education. The content of the PGCE lesson observed related specifically to the use of technology to support teaching and learning. The multimodal data show how the teacher educator in England at the beginning of the lesson confirmed with the students if they had been using iPads during their placements. Similarly, the teacher educator introduced technology that is currently being used in the schools where the student teachers carry out their placements. This is likely done purposely, in order to bridge the gap between theory and practice, even though it is difficult to isolate theory from practice, because in reality this is too complex. From the data it appears that the teacher educator in England is guiding the student teachers to reflect on the teaching they have done during placement. The placement is an integral part of allowing a student teacher to understand how some behaviours and practices in schools are informed by theories.

Furthermore, the multimodal data show that the teacher educator related the content to school children and how the student teachers could apply their new knowledge when they go into workplaces. The activities and the teaching style of the lesson resembled those of a primary classroom, and the teacher used games that were childlike, bright and colourful. In other words, the teacher educator modelled teaching to student teachers thus preparing them for placement.

Lamote and Engels (2010) suggest that students who attended placements were able to see the realistic side of teaching and bridge the gap between theoretical and practical knowledge. This can be related to the findings of the thematic data, in which all teacher educators from the English sample suggested that they have observed a boost in confidence during and after placement (see Chapter 6). One of the teacher educators, for example, said that a student teacher in her class had little or no knowledge of how to use an iPad in teaching, but after her placement the student teacher felt confident enough to teach her peers. Another aspect that was reinforced by their placements was integrating technology into teaching. One of the student teachers suggested that she managed to apply the theoretical knowledge of technology she acquired at university to practical teaching techniques with traditional learning materials, such as a story book or a board game during her school placement. The student teacher gave an example of introducing children to mapping and finding places through the children's story book *The Three Little Pigs* on an application on the iPad (see

Chapter 6). This suggests that technology helped the student teacher to explain the concept of mapping to children. This activity further allowed the student teachers to interact with the children, which helps with building a dialogue during teaching. This relates to the finding of Tondeur et al. (2012) that technology aids teachers while teaching, because it is attractive and interactive to learners.

It is important for student teachers to have access to technology during placement (Tondeur et al., 2012). The thematic data shows that student teachers and teacher educators expressed a concern that some of the placement schools were poorly resourced. One of the teacher educators said that there is a great difference between schools; some have cutting-edge technology, while others are struggling to get funding to buy new computers. This is the reality at present, as there are many schools in England that do not have access to the latest technology (Connelly et al., 2014), which could be a barrier the student teachers experienced during placements. Setting aside the unequal availability of technological resources in schools across England, the placements for student teachers are considered a successful element of the course, because they prepare the student teachers for the practical world of teaching. This is in line with a review of teacher education by Jones and Ryan (2014), who conclude that placement is an active element in teacher education, because the student teachers learn beyond textbooks and assessment. Instead, they have hands on experience in learning how to teach.

Another problem associated with work placement in England concerns mentorship. Every student teacher is assigned a mentor with whom they interact for guidance and to discuss progress in their school placement. Currently, in England the reflective model of mentoring in the placement schools is advocated; the student teachers are encouraged to reflect upon their practice and learn from it under the mentor's guidance (Kerry and Mayes, 2014). However, mentoring can be a complicated task, because the student teacher and the mentor need to have rapport in order to make the work placement as good an experience as possible (Lofthouse and Thomas, 2014). Although the data from the present study does not reflect the student teachers encountering any problems during placements, the reason for this is probably that the researcher did not ask about mentoring during the interview. Another reason could be that problems with work placements may be related to particular regions in

England, as every county has its own council and structure, which would make it difficult to gauge the problem.

In Kuwait, student teachers have mandatory work placements as well, although they are not as rigorous as in England (see section 3.3 in Chapter 3). Higher education and its governing policies are regulated and enforced by the Ministry of Education (World Data on Education, 2011). Students are only expected to carry out 38 hours of work placement (Al-Obaid, 2006; World Data on Education, 2011). However, most students do not even fulfil this requirement, as confirmed by the student teachers in the present thematic analysis.

The Kuwait data show that the teacher educator did not model interactive teaching to the student teachers. This observation from the multimodal data is reinforced by the thematic data, in which many student teachers express concern about their lack of knowledge and skills in relation to pedagogy due to the little to no work experience they had during training. One of the student teachers said: “We train ourselves”; and another student said: “I think my output as an educator and teaching methods are very weak. I cannot even convey my teaching material; therefore, how will I be a teacher? I’m not confident enough to be a teacher.” These quotes suggest that student teachers in Kuwait lack confidence in practical teaching due to a lack of exposure to real school environments. These findings accord with those of previous studies (Al-Shammari, 2011).

The school placement the student teachers in Kuwait attend is for their final research project. It only lasts two weeks and the students are not allowed to get involved in classroom activities; they can only observe. This suggests that perhaps the lack of knowledge and skills of Kuwaiti teachers described in the literature is the result of not participating in work placements during their initial teacher training. The curriculum of teacher training may require revising, as it appears to have no policy enforcement (Al-Nakib, 2015). This refers to the fact that at present, according to literature mentioned in previous chapters (Al-Harbi, 2014; Al-Duwaila, 2012; Fattahova, 2013) and reflected in the present data, there is little or no involvement of the education officers or policy makers from PAAET or the Ministry of Education who monitor or revise the curriculum. PAAET’s curriculum and guidelines for teacher educators instruct the teacher educators to use methods that bridge the gap between theory and practice. The teacher educators should also use technology and integrate this in

their teaching and the student teachers should be assessed to evaluate their performance in theoretical and practical areas of teaching. However, in reality, as suggested by the student teachers in the Kuwaiti thematic data, these guidelines and requirements are not implemented, because the data suggest that there is no third party from outside of PAAET to inspect the teacher educators or the curriculum. Therefore, policy makers and management may need to revise their policies and improve the standard of teacher educators.

9.2 Integrating technology in the teaching curriculum

The student teachers in England were studying the new curriculum relating to ICT, which has been outlined in Chapter 3. This curriculum now refers to ICT as computing and expects children as young as in Key Stage 1 (aged 5-7 years) to become familiar with a variety of technologies for learning purposes in schools (Morris, 2015). Therefore, student teachers in the present data were learning about data loggers, sensors, online software and coding through algorithms. In the data from England, the student teachers used data loggers to carry out an experiment called 'Teddy's sun glasses', which is about using coloured light sensors to detect the brightest light. Likewise, the student teachers used software Oscar to do branching. The teacher educator also showed the researcher Bee-Bot, a floor robot that teaches children about programming and directional language (see Chapter 5). The student teachers in the data were building up skills related to the revised curriculum on computing, with Bee-Bot and similar gadgets as promoters of this curriculum.

The student teachers also demonstrated the use of software similar to what they used in their placements to create stories with children and even act them out in role-plays, which they recorded. In line with Beauchamp et al. (2015a), one of the student teachers said in the present thematic data: "With my iPad I can take pictures of my observations and record my reflections and save my work for later use" (see thematic analysis, Chapter 6). This indicates that technology is facilitating the student teacher's own learning during the training, because she is able to save information for later use.

In line with Al-Harbi (2014), who reports that the content of the ICT curriculum of teacher education in Kuwait is basic, the teacher educator in Kuwait taught the student teachers basic Microsoft Office skills, such as the commands and functions of the program, throughout the

lesson. The student teachers also studied from a book that described all basic Microsoft Office skills. This, perhaps, indicates that the teacher educator was teaching student teachers the curriculum that is taught in schools. This is true, at least to an extent, because the curriculum of ICT in Kuwait's public primary and secondary schools is again basic in content. Teacher educators do not use technologies such as data loggers. The primary and secondary schools use computers for literacy lessons and to master basic programs such as Microsoft Word, Excel and PowerPoint, which reflects the lesson recorded in the present multimodal data (Mohammad et al., 2011).

The data adds to the lack of implementation observed in the literature with respect to integrating technology in teaching and learning in Kuwait's education system (Al-Shammari, 2011). One of the student teachers from Kuwait said: "The first thing, there is no technology use; the second point is lack of training: there is no available trainer to train for teaching, we only train ourselves." Another student teacher said: "The content taught for technology is very basic, not for university level." The remaining student teachers from the thematic data in Kuwait expressed similar views (thematic analysis, Chapter 6). Although the findings of the present study cannot be generalised to say that the student teachers in Kuwait are not satisfied with the training they are receiving on technology, the findings from the thematic data are similar to the existing literature in that they show that technology is seen as a challenge by student teachers, teacher educators and other teaching staff in the public education sector.

Another challenge experienced in the training of student teachers are language barriers. Buarki et al. (2009) report that in Kuwait students are not familiar with the English language, while in the curriculum the operations and commands of technology such as Microsoft Office are in English, which is seen as a barrier. This is in line with the findings in the present thematic data from Kuwait; as one student teacher claimed: "All of the curriculum for technology is in English and I don't understand English; therefore, I have to hire a private tutor who can teach me and make me understand." This quote indicates two issues: one, that having to understand English can be a barrier and two, that the teaching staff is perhaps unable to explain the lesson content properly to the student teachers, which leads to hiring private tutors, as reported elsewhere (Algharabali et al., 2014; AlShatti, 2014).

The data and literature discussed in this section indicate a difference between the technology curricula of England and Kuwait. In England, the curriculum has certain standards and expects teachers and students to integrate technology into their teaching and learning, especially after the revision of the curriculum in 2014 (Berry, 2014). There are still many schools with limited access to technology in England. However, it is claimed that this will change for the better by 2016 (BESA, 2015), as studies report that more schools are investing in technology, especially in iPads and tablets, and the number of these kinds of technologies is predicted to increase (Coughlan, 2014). According to the data and literature on Kuwait, the technology curriculum is basic in content and many challenges are mentioned at all levels (educators and student teachers) regarding accessing technology and receiving adequate training (Mohammad et al., 2011). This lack of technology in teacher education is producing teachers lacking in skills, especially in ICT, which is reinforcing the cycle of untrained teachers in the Kuwaiti education system. Most research conducted in Kuwait suggests that when student teachers finish their training and start teaching, they have little to no knowledge of how to integrate technology into their teaching in schools. Al-Harbi (2014) reported that student teachers confessed to lacking in confidence once their training was completed and they felt reluctant to teach. This is similar to findings from the thematic data in the present study, as a few of the student teachers from Kuwait implied that they do not have the skills to teach despite finishing their training. This is the result of the curriculum in Kuwait and the lack of support from the management of PAAET and policy makers, who are showing negligence in improving the educator system. Although according to PAAET policy student teachers should be equipped with skills and knowledge of technology, in reality there appears to be little or no enforcement of policy (PAAET, 2015; Buarki, et al., 2009; Alkhezzi and Abdelmagid, 2011).

9.3 Learning theories, practice and method

This section reflects on the learning theories described and examined in Chapter 2. The literature states that teaching approaches are likely to be informed by the core learning theories. This section, therefore, will examine each learning theory individually as it will shed further light on this study's data. This section will first discuss behaviourism, followed by cognitivism and social constructivism/modelling.

9.3.1 Behaviourism

The underlying concept of behaviourist theory is that behaviour is determined by two types of reinforcements: negative and positive (Skinner, 1948). Both of these reinforcements are believed to strengthen and repeat behaviour (Mowrer and Klein, 2000) as per preference of the teacher. In the context of the present data, both teacher educators seemed to utilise the reinforcement theory. In the multimodal data from England, the teacher educator used verbal positive reinforcement in **episode 1 (beginning of the lesson)** and **episode 4 (lesson closure)** when he said: “That’s it”, or “You are on the right track.” Here the teacher educator encouraged the student teachers through positive language. One of the student teachers said: “We use puppets in schools to positively reinforce behaviour and engage children when we are doing story time, because children like puppets and games.” This is an example of positive reinforcement with respect to behaviour, because through games the teacher can guide the learner in behaving a certain way in class. Behaviourist methods are well-known and used in schools in England, especially to handle disruptive behaviour (Department for Education, 2012). For example, positive reinforcement in the form of reward charts and stickers are given to children to express appreciation, in order to reinforce a particular behaviour.

Compared to the data from England, the Kuwait context favours the use of negative reinforcement. In multimodal **episode 4 (lesson closure)**, the teacher educator said to the student teachers that “if you do not finish in the next five minutes, I will cut two marks from your test results.” This is a classic example of negative reinforcement, as the teacher used the threat of punishment to guide the student teachers towards a desired behaviour. Another example is the verbal negative reinforcement used by the teacher; for instance, in **episode 4 (lesson closure)** the teacher said to a student who was using her mobile: “It’s forbidden; do not use it in my class.” Here the teacher used negative reinforcement to discourage the student from using the mobile again. Although the action itself may be justified, since the teacher is asking the student to pay attention, perhaps the tone of the teacher was harsh.

This negative reinforcement is also observed in the thematic data. Amongst the student teachers, one claimed that due to her teacher’s negative attitude she began to dislike the subject. Algharabali et al. (2014) studied the students’ view of their teachers at the College of Basic Education, which is where the present study’s participants are enrolled. The study

concluded that most student teachers were dissatisfied with their teachers' teaching, especially because the teachers often showed anger and verbal negative reinforcement to achieve a desired behaviour from the students. Al-Obaid (2006) found similar, namely that in teacher education teachers used more negative reinforcement than positive in Kuwait. This resonates with the teaching style exhibited by the teacher educator in Kuwait, which appears to be informed by the teacher-centred approach. As discussed in Chapter 2, the literature suggests that the teaching approach most associated with behaviourist theory is teacher-centred, because the teacher teaches through repetition, memorisation and reinforcement. This is because the teacher is considered the centre of knowledge, which results in teaching through repetition. In the Kuwaiti context perhaps the practice of behaviourism is fuelled by the outdated curriculum (Al-Nakib, 2015; AlShatti, 2006). According to Al-Nakib there is no policy enforcement of the curriculum (as mentioned earlier in this chapter) by the Ministry of Education, and the policy makers and designated authorities are neglecting to revise the curriculum. The teachers continue to use the same teaching methods, because the curriculum only encourages the students to mechanically memorise the information from the book, in addition to which the teacher uses negative or positive reinforcement (Aldhafeeri and Male, 2015; Alkhezzi and Abdelmagid, 2011).

9.3.2 Cognitivism

According to cognitivist theory, knowledge is absorbed through mental representation and through previous experiences and knowledge (Bush, 2006). In this theory the role of the teacher is to facilitate discovery by providing the students with the resources and materials needed for the learning process. For example, a teacher may ask the students to repeat in their own words the content that they learned, which will enable the student to form semantic learning and construct meaning. In the England multimodal data, the teacher educator explained and demonstrated the experiments to the students, but let them form groups to experience the experiments for themselves. The multimodal data indicates that the student teachers made mistakes and then learned. This suggests that they were learning by doing, which shows active learning, because they participated in the activity and actively contributed to all the tasks that needed to be completed for the experiments. Research confirms that group work leads to learning through problem solving and discovery (Whitton

et al., 2004). In the thematic data, the teacher educators suggested that especially through technology they teach their student teachers skills such as problem solving that lead to independent thinking. One of the teacher educators, for example, said: "I give student teachers the iPad to do their own research and think for themselves." A student teacher added: "By using iPads in schools the children can record their performance and reflect on it afterwards." This indicates that the teacher guided the student but also allowed the student to carry out independent learning.

In contrast, in Kuwait the teacher did not appear to use a teaching approach that was informed by cognitive theory, because the lesson content was very basic and did not appear to involve any higher-order thinking. The multimodal data indicates that the teacher instructed the student teachers. The student teachers, while listening to the instructions, followed him on their computers. The teacher educator connected his computer to the student teachers' computers through the Teacher OP software to demonstrate to the students how to carry out the instructions. This form of teaching style supports behaviourism rather than cognitivism, as the teacher wanted the students to follow the instructions in order, without independent thinking. This conclusion is reinforced by the thematic data, which suggest that the teacher educator did not use problem solving or other higher-order thinking skills that develop intellectual conceptualisation in students. One of the student teachers said: "The teachers do not teach us analytical skills; they believe it is not important for us and they do not seem to respect our independent thinking". The teachers in Kuwait were perhaps not using the problem-solving model or teaching methods, because the curriculum is rigid and has no space for problem solving techniques. As discussed earlier in this section, the curriculum in Kuwait is based on memorisation rather than independent thinking. Therefore, the teachers may experience difficulty in applying problem solving-based thinking to the current curriculum.

This approach from the teachers in Kuwait is likely to discourage the students from developing cognitive skills and applying cognitivist teaching approaches in their own classrooms. A recent study by one of the researchers of PAAET (Al-Othman, 2014) claims that students in higher education experience difficulties, because cognition has not been developed properly through early education. Indeed, multiple studies (Al-Othman, 2014; Al-Nakib, 2015; Al-Harbi, 2014) conclude that cognitive skills are not part of the curriculum from the early years of

learning since the emphasis is more on memorising knowledge than understanding it with meaning. Al-Othman (2014) also reported that students who had a better quality early years education were able to uphold the teacher's instructions and carry out independent learning more successfully than students who were taught through memorisation.

9.3.3 Social constructivism and modelling

The social constructivist approach is a collection of theories and overlapping ideologies that view learning as part of the social context rather than a separate entity. Since they overlap each other, especially in the context of the present study, this section focuses on social constructivism and modelling.

As outlined in Chapter 2, social constructivism endorses the work of Vygotsky (1978) and Bandura (1977). In the work of these theorists, learning is believed to be a social act and a result of discovering true potential and working with capable peers. Collaboration and learning through observation is considered important to learning through social constructivism. Social learning theory, introduced by Bandura (1977), states that learning takes place through observation and modelling. In this theory, modelling allows the learner to observe and process and use the information acquired in their own practice.

The findings from the multimodal and thematic data suggest that in England collaboration and modelling are used more than in Kuwait. It is important to acknowledge that only one lesson was observed from England and Kuwait, therefore the findings cannot be generalised. However the present discussion discusses the observations made by the researcher. In England, multimodal data in **episode 1 (beginning of the lesson)**, **episode 4 (lesson closure)** and **moment 4 (attitude)** showed the student teachers to be working together, sharing ideas and understanding the task together. In **moment 4 (attitude)**, for example, the student teachers worked together on the floor, doing the 'Teddy's sunglasses' experiment. During the group work the students helped each other with problem solving and shared experiences concerning the task with each other. Meanwhile, the teacher educator supervised the student teachers conducting the experiment. This represents social constructivism, as the student teachers were interacting with each other and learning together. The skill of working in a team and learning together is a common practice in almost all professions, and especially in

England this aspect is highly emphasised during employment (Burge et al., 2012; Henkin and Dee, 2012). This is also observed in the thematic data, as one of teacher educators from England claimed that “we put our students into small groups and give them the chance to learn and interact together as it’s an essential skill for them to teach to children when they become teachers.” In social constructivism the student teachers are expected to develop and form their own teaching philosophy, based on their experience and cultural backgrounds. The social constructivist ideology posits that students reflect and continue to building their knowledge through their teaching philosophy; it is an ongoing practice that resonates with the theory Dewey (1933) presented on reflection.

With respect to Kuwait, the data does not show any collaborative working between student and teachers. However, the data show that the students’ previous education has shaped their opinion of the university experience, especially with respect to learning. One of the student teachers in Kuwait said that she did her schooling at an English middle school and when she started to study in PAAET’s College of Basic Education the technology programs taught were at a very basic level, inadequate for higher education. Secondly, the student teachers considered language barriers a problem in teacher training in Kuwait, which shows that previous exposure to knowledge determines the student’s level of knowledge in the present. This suggests that building knowledge of technology from the early years on is important for the students, especially if problems in higher education are to be avoided. However, in Kuwait the curriculum is outdated for intermediate, primary and secondary education, which makes it challenging to transfer adequate knowledge and skills to higher education (Al-Nakib, 2015).

Multimodal data from England show how the teacher educator modelled teaching to the student teachers. Throughout the data, the teacher explicitly and implicitly modelled teaching, through his language and actions. For example, in *episode 4* the teacher educator stopped the student teachers and said: “I have a great teaching tip for you.” The teacher used positive language when interacting with the student teachers, such as “good” and “excellent”. It can be inferred that the teacher educator taught the content of the lesson, ICT but at the same time taught the students by example how to teach and deliver information. The teacher educator in England also modelled how to teach children. Figure 5 shows a sequence of picture stills taken from the video recording and associated captions. This figure clearly demonstrates that the teacher in England taught the student teachers about the language,

action and interaction that should be used when teaching children. The teacher modelled teaching (figures 9.1 and 9.2) and, therefore, used relevant bodily movements, such as leaning forward, making eye contact and smiling, unlike the teacher educator from Kuwait, who solely focused on instructions (figures 9.3 and 9.4).

England scene



Figure 9.1: Shows the teacher educator in England introducing a new data handling topic to student teachers, by relating it to teaching children.

“Teacher: **“So if we use data from children that they actually provide, surely it would be more meaningful to them. So who has a dog? ”**”



Figure 9.2: Shows the student teachers' response to the teacher educator's question during the class activity.

Kuwait scene



Figure 9.3: Shows the teacher educator in Kuwait standing in the middle of the class and giving instructions to the student teachers.



Figure 9.4: Shows the teacher educator standing behind the desk and asking student teachers to carry out the exercise in the textbook.

The concept of modelling is also reflected in the England thematic data (Chapter 6). As one of the teacher educators said: "We lead by example and we try to model good practice and teaching." Another teacher said: "We really try to model primary school teaching." This indicates that the teacher educators purposely exhibited this behaviour, because they wanted the student teachers to pick it up and apply it during their own teaching. Social learning theory is not as mechanical as behaviourism; the student teachers learn from stimuli and can form independent thinking (Watson, 2013).

In comparison, in Kuwait the teacher educator modelled the instructive model of teaching. In the instructive model the teacher's instructions are the channel through which students receive and understand the lesson content (Gustafson and Branch, 1997). This model is visible in both the multimodal and thematic analyses. In the multimodal data, the teacher was seen instructing the student teachers to complete the class exercise. Perhaps this can be classified as modelling in the context of teaching in Kuwait, because in the thematic data the teacher educators claimed to be using the instructive teaching model in order to deliver the information to the student teachers. For example, one teacher educator said: "I deliver the information to the students" (see Chapter 6). Another teacher educator said: "I have to

deliver the information to the students and if I use other means such as technology, then as a teacher it is my personal effort.” Another example comes from a teacher educator who said: “All the students depend on the teacher for information and the teacher just transfers this knowledge.” Although the data from the present study cannot be generalised since the sample size is too small, it does suggest that in Kuwait the educator mode of teaching appears to be instructional. This teaching style is likely to be transferred to the student teachers, which would strengthen the prevalence of the instructional model in the education system of Kuwait (Al-Nakib, 2015).

Another aspect of social learning theory is the physical environment. The discussion in Chapters 7 and 8 indicates that in England physical characteristics of the classroom are considered important. This is supported by research; Lippman (2010), for example, claims that colourful displays motivate and encourage students. However, in Kuwait, especially in higher education, it is not common to involve the physical environment in teaching and learning, as observed in the images in Chapters 7 and 8, which show that the walls of the classroom in the PAAET institute were all plain.

In conclusion, the consideration of different learning theories enables comparison of the teaching approaches used by the teacher educators in England and Kuwait. The multimodal findings show that the teacher educator in England used behaviourist principles to positively reinforce the student teachers through verbal language, whereas the teacher educator in Kuwait used negative reinforcement in the form of punishment in order to make the students work at a faster pace. The findings indicate that teacher educators from England and Kuwait used the behaviourist theory differently, which is likely the result of cultural differences, as discussed in Chapter 2 and 3.

With respect to cognitive theory, the multimodal data from England showed the teacher educator explaining and demonstrating the experiment to the students; however, he let them form groups and do the experiments themselves (indicated by **episode 1** (beginning of the lesson) and **moment 4 (attitude)**). In contrast, there appears to be limited use of teaching approaches informed by cognitive theory in Kuwait, because in both sets of data the student teachers claimed to only gain knowledge from the curriculum and adhere to memorising it in order to pass in their exams.

Regarding the social learning theory under social constructivism, the findings from the English multimodal data indicated throughout the episodes that the teacher modelled teaching to the student teachers. In the thematic data, one of the teacher educators confirmed: “We like to lead by example and show students how to actually teach.” For Kuwait the multimodal data showed no modelling, apart from the teacher educator practicing the instructive model of teaching. This was in line with the thematic data; as one of the teacher educators said: “I deliver the information to the students.” This indicates, although this cannot be generalised, that the teacher educators in Kuwait feel responsible for delivering information rather than facilitating alternative teaching approaches.

In England, as in other Western countries, research plays a major role in discovering new ideas and solutions (OECD, 2014). Critical skills are needed for this, which are the by-products of cognitive and social learning theories. In Kuwait the lack of implementation of learning theories other than behaviourism could be the result of the teacher education philosophy. In order to improve the current understanding of the education system and the culture of Kuwait, the Ministry of Education needs to improve the system by conducting research to yield the most suitable learning theories and strategies that would still be effective and yet acceptable in the culture of Kuwait. The most appropriate way forward would be to run a trial course for teacher educators in which all of the above practices are embedded. This trial course could be a stepping stone to introducing new teaching ideas and learning theories not yet practiced in Kuwait. The following section proposes guidelines for a trial course for the teacher educators working at the College of Basic Education under PAAET.

9.4 Guidelines for development of pedagogy in Kuwait

The findings of the present study for Kuwait suggest that the teacher educator training is providing inadequate training to the student teachers. The main reason behind this is the lack of training given to the teacher educators who are responsible for training student teachers. This has led me to design guidelines for the pedagogy of a potential future course for the teacher educators working at PAAET. I believe these guidelines can be a starting point for PAAET to constitute changes in the teacher educator training at the College of Basic Education. The design is an idea and a vision, which can be subject to change and adjusted in the future by PAAET or other researchers. This course can be taught as a trial for the teacher

educators in the span of one semester and will cover all aspects, such as teaching approaches, technology and multimodality. The findings from Kuwait and UK based on the multimodal and thematic data were used to design the guidelines. These guidelines can be considered a recommendation for designing a course that addresses certain challenges in the cultural context of Kuwait. However, these guidelines do not target its cultural values and do not intend to offend the teacher educators or PAAET; they are intended to recommend a course that can potentially produce more qualified, knowledgeable and skilful teacher educators.

I accept that I am likely to face some challenges with respect to this course. Firstly, these guidelines may not be applicable to all subjects such as maths and science. Secondly, the teacher's preference will determine whether they want to undertake this course or not. Some teachers may feel comfortable with their teaching style and do not wish to learn new methods. Thirdly, the course material can be a challenge, because it needs to be designed in keeping with the current knowledge and understanding of teacher educators and their needs in Kuwait. It is likely that they not understand some of the terminologies or theoretical frameworks, therefore the course material needs to be designed with caution in line with their needs. Fourthly, it can be difficult to find a team of well-trained teachers in the area of this course to deliver this course with me. Fifthly, the policy makers may not accept the changes due to cultural differences. Finally, the course is likely to be time consuming and in reality it may take time for the teacher educators to adopt these guidelines. However, this study is sponsored by PAAET, which wishes, in line with the Ministry of Education, to bring change to teacher educator training in Kuwait. The outcome of this course will assess and clarify the standards of teacher educators in Kuwait.

9.4.1 Guideline 1: Integrating technology into teacher educator training

The integration of technology in teacher education is important as it enhances teaching. The data in England show how the teacher educator used several types of technologies such as data loggers, Bee-Bots, remote controls for voting ('clickers'), software for data handling and of course iPads. These resources were all incorporated in the course and related to teaching. The student teachers were applying these technologies in order to facilitate their personal learning as well as to teach with them during work placement at schools. In Kuwait, the use

of technology in teaching was noted by some teacher educators, but it was not applied in the classroom on a regular basis. However, the data (multimodal and thematic) did not show many of the teacher educators in Kuwait to be using technology apart from a few who used social media and Moodle.

PAAET needs to provide technologies such iPads, as well as software for teaching and voting remote controls, to the College of Basic Education; the data and literature (as discussed in Chapters 7, 8 and 9) suggest that economically the management can afford these resources, but the funds are not used appropriately. In the proposed course, the teacher educators would be trained on these technologies and how they can be integrated in the training of teacher educators in the College of Basic Education. In the practice of the classroom, these technologies could be used together with traditional teaching methods. Teacher educators could, for example, train student teachers in how to use iPads for their personal learning as well as professional practice. This will result in student teachers being taught by mixed methods.

With respect to the implementation, as suggested in the data from the present study and existing literature, funding is not the major issue; rather, the lack of enforcement of policy appears to have slowed down the development of teacher education in Kuwait. Therefore, the desired change is likely to occur once the policy makers and those in positions of authority within PAAET comprehend the importance of integration of technology, which can be achieved by presenting them with research findings and possibly training from ICT experts. This can give insight to teacher educators as well as the managerial staff at PAAET.

As this course involves technology-based learning and the introduction of different software programs, it would be sensible to have an IT team on stand-by in case anything goes wrong with the system. The course sessions will include the use of projectors and the connection of multiple software programs and gadgets, and extra support services from the IT team will assure problems are resolved immediately, without causing any delays in the classroom.

9.4.2 Guideline 2: Introducing multimodality

The multimodality and thematic data indicate that in England the teacher used modes (such as language, gesture, posture, gaze, interaction, action, and visual and auditory representations) to form interaction with the student teachers. For example, the teacher used the projector (visuals) and communicated (language) with the student teachers about the material by being friendly and warm (gesture and gaze). Multimodality also guides the differences between England and Kuwait classrooms with respect to the social context. From a theoretical perspective, the multimodality analysis sheds light on aspects such as attitude, teaching style and reflection, which shaped the present structure and atmosphere of the classrooms in Kuwait and England.

In contrast, the data (multimodal and thematic) from Kuwait show that the teacher educators mainly relied on the language mode, which was less interactive and more instructive. The literature suggests multimodality is a framework: if applied in teaching it can facilitate the learning of the student teachers and can potentially enrich their knowledge. In these course guidelines, the theoretical social contextual elements of multimodality can be discussed, such as attitude and teaching style, which will set the stage for the training on how to apply multimodality in practice. Therefore, it would be appropriate to include a section in the proposed course that first raises awareness of multimodality and secondly, shows how teacher educators can apply multimodality in their teaching. It would not be possible to teach everything about multimodality during this course, but drawing on the works of Jewitt and Kress, the teacher educators can be taught how to incorporate key communication modes into their teaching, such as language and bodily movements. This will also emphasise the importance of interaction. Another important concept is that of semiotic resources. The teacher educator should first be shown what they are (resources to represent information through visual, auditory and tactile modes) and how to incorporate them in teaching.

It is likely that introducing multimodality will cause problems when it comes to implementation. Firstly, the concept of multimodality is new to the educator culture of Kuwait, so it may take some time before it is accepted and practiced in teaching. Secondly, some teacher educators may prefer to use their traditional methods of teaching over multimodality, because from a cultural perspective they are perceived to garner more respect. However, with training the teacher educators are more likely to accept changes. The

data of the present study indicate that teacher educators from Kuwait did want to learn about different teaching approaches and receive training; the only barrier was lack of effective management by PAAET and the Ministry of Education. Also some teacher educators indicated cultural barriers to be a concern with regard to new concepts of pedagogy to the Kuwaiti education system. However, this suggests that multimodality, or at least aspects of it, could be introduced.

Once trained, the teacher educators are likely to transfer their new knowledge about the theory and practice of multimodality to the student teachers, who are the future teachers in schools and higher education.

9.4.3 Guideline 3: Introducing an alternative to the teacher-centred teaching method

The findings of the present study suggest that the teaching methods, classroom activities and the learning theories that inform learning approaches differed considerably between England and Kuwait, which was especially exhibited in the multimodal data. Firstly, in England the teacher used the student-centred approach. Secondly, the teacher educator in England initiated discussions and encouraged group work. Thirdly, the teacher educator's teaching style was underpinned by different theories of learning; for example, behaviourism for positive reinforcement, cognitivism for critical thinking and problem solving, and social context for modelling and social constructivism by forming group activities for the student teachers to interact and learn from each other. However, the contrasting findings from the Kuwait multimodal data suggest that the teacher educator mainly drew on behaviourist teaching approaches, and primarily adopted negative reinforcement. This observation resonated in the thematic data. The teacher educator, in accordance with the literature, mostly used traditional methods of teaching, in which the teacher is the focal point of providing knowledge. Also, the whole sample of student teachers in the thematic data from Kuwait expressed dissatisfaction with the present teaching in the College of Basic Education. Considering these findings, it would be most appropriate to train the teacher educators first on the theoretical aspects of teaching, such as introducing them to learning theories and different teaching approaches based on these theories. The course could teach different teaching styles and guide the teacher educators through workshops and role-plays for

example. The teacher educators could be taught about working in groups through giving them a task carried out in a group. Taking part in this activity could help teacher educators to understand the learning benefits of this kind of method in class activities. Teaching attitudes and teaching styles could be videotaped and played back to the teacher educators for constructive feedback from the instructor and peers. This exercise can be insightful and highly reflective, because the teacher educators can watch their performance repeatedly to determine the strengths and weaknesses of their teaching and how it can be improved. Through the feedback, especially from the instructor, the teacher educator can be given tips and pointers on how to improve further. This stimulation task has the potential to increase confidence and self-efficacy in the teacher educators, especially by showing them that they can apply new and alternative ways of teaching during their lessons.

9.4.4 Guideline 4: Work placement discussion

The findings of this research suggest a lack of awareness of the benefits of work placements amongst the Kuwait teacher educators, compared to England. In England, both multimodal and thematic data show the teacher educator teaching in the context of teacher educator training. The teacher educator linked his teaching to teaching children in schools, as the student teachers were training to become primary school teachers. The student teachers in England went on work placements and the teacher educator bridged the gap between their university learning and school practice by using social learning theory and modelling 'teaching' to the student teachers. However, the Kuwaiti data shows no concept of this; especially since the work placement for student teachers in Kuwait is not as well structured as in England. In order to introduce modelling to teacher educators, it is important to first train and familiarise them with the social learning theory in order to prepare them for contextual teaching. However, teacher educators should be informed about the cultural differences that come into play when applying learning theories most commonly used in the West. This could ensure that the teacher educators apply learning theories that are in line with the culture of Kuwait. The implementation of learning theories attracts more challenges, because what is practiced in England may not be necessarily beneficial for teacher education in Kuwait. Therefore, whilst introducing learning theories it is imperative to analyse which learning theory or teaching approach can be redesigned to suit the cultural values of Kuwait

or even in England. The implementation of new teaching approaches or even learning theory takes time to research and develop. The process is complex and dynamic and requires extensive work.

Furthermore, the teacher educator will be trained in how to relate the teaching content to the learners. For example, if the student teachers specialise in elementary education, the teacher educator should relate the content to children, by giving them examples, in particular through modelling and initiating discussions. The course can also include positive psychology theory, which suggests that through positive emotions and modelling, the learning process can become more meaningful and relatable. The teacher educator, as shown in England, can be taught to relate the course content to children or the learners of any education level that the student teachers are qualifying for to teach.

The guideline is for the teacher educators to incorporate social learning theory in their teaching method and model teaching to the student teachers, especially how to teach in primary schools. The course should teach teacher educators how to lead by example and model practices that resemble primary school teaching. This practice will increase confidence in the teacher educators as well as student teachers, because the gap between theory and practice can be addressed through this teaching approach.

9.4.5 Guideline 5: Feedback on the course

As suggested by the literature and the data of the present study, the Ministry of Education has enough funds for investment, as Kuwait has a secure economic status. The problem, however, lies within the management of the Ministry of Education and PAAET. This suggests that PAAET can fund the course once approval has been granted.

As this course will be a trial, it will require evaluation. It is important to obtain feedback from the teacher educators who take part in the course, in order to understand the impact this course has had. The feedback can be collected through a questionnaire and a focus group. The questionnaire will give the opinions, likes and dislikes concerning the course statistically, whereas the focus group will enable a more in-depth qualitative discussion with the teacher

educators and members of PAAET management to discuss the benefits, strengths and weaknesses of the course and how it can be applied in the future.

The questionnaire will be kept anonymous in order to protect the identity of the teacher educators. Teacher educators who have participated in the course trial will be asked on a voluntary basis and with informed consent to be part of the focus group. This will insure credibility and trustworthiness regarding the outcome of the course.

The feedback collected through the questionnaire and focus group will be used to assess the trial course and its potential to overcome obstacles. It will highlight participants' viewpoints about the course outcomes and the steps that could be taken in the future to make such courses a common practice in teacher educator training in Kuwait. The video recorded during the course can be used for future research, focusing specifically on other aspects of improving teacher training in Kuwait. These aspects could be related to technology, culture, teacher interaction, and acceptance of change of new technologies or teaching styles in Kuwaiti society. This will create a wider scope for future research, looking at individual features, to fill the gaps in the research on teacher educator training in Kuwait with the aim of further improvement.

The next chapter is the concluding chapter of this thesis, which shall summarise the main findings and results of the study. This will be followed by recommendations, contributions this research makes to Kuwait teacher education, its limitations and suggestions for future studies, based on the findings from the present research.

Chapter 10: Conclusions

This chapter summarises the research in the light of the findings and supporting literature. The chapter then discusses the contributions this research has made, especially its potential for bringing positive change to teacher education training in Kuwait. This is followed by recommendations on pedagogy, technology and management in teacher education in Kuwait, based on the findings. Also, this chapter examines the possible limitations of this study and how they were addressed during the research process. Finally, ideas are listed for future research in relation to teacher education and the guidelines proposed in Chapter 9 of this thesis.

The first research was aim to explore appropriate practice in teaching methods in the field of multimodal learning and teaching by investigating the experiences of student teachers and qualified teacher educators from faculties of education in England and Kuwait.

The second research aim was to compare the teacher education systems and student experiences in England and Kuwait.

The third research aim was to undertake a multimodal analysis of teacher education practices that are designed to show students how to use technology in the classroom

10.1 Implications of the key findings

This research had three main aims. Firstly, to explore appropriate practice in teaching methods in the field of multimodal learning and teaching by investigating the experiences of student teachers and qualified teacher educators from faculties of education in England and Kuwait. Secondly, to compare the teacher education systems and student experiences in England and Kuwait. Thirdly, to undertake a multimodal analysis of teacher education practices that are designed to show students how to use technology in the classroom.

I will now review the three research questions that inform this thesis.

1. What are the perspectives of teachers and students with respect to teaching and learning?

The findings for this research question showed differences between England and Kuwait with respect to the student-teacher relationship and preferences regarding teaching and learning. In terms of the student-teacher relationship, the teacher educator in England used informal language informed by the student-centred approach during teaching, whereas the teacher educator in Kuwait used formal language informed by the teacher-centred approach. The language of the teacher educators in England and Kuwait was reinforced by bodily movements, which included gesture, gaze, interaction, action and posture. The teacher educator in England had an open posture and maintained eye contact, whereas the teacher educator in Kuwait had a closed posture and did not make eye contact. These differences acknowledged culture differences (see Chapter 7). In terms of preferences, teacher educators and student teachers in England and Kuwait both preferred mixed methods with respect to teaching and learning; a mixture of both traditional approaches such as lecturing/instructional teaching and technology-based learning. However, the teacher educators in England had more access to technology than the teacher educators in Kuwait.

The findings on this research question indicated that in England multimodality is embedded in the culture of the classroom and teacher educators use it to facilitate the construction of meaning, followed by representing information through more than one mode (gaze, gesture, posture, action and language). However, in Kuwait multimodality appears less in the findings, due to a lack of awareness. In order to raise awareness and understanding of how multimodality can be applied in learning and teaching, more education research needs to be conducted. This future research should emphasise the need to acknowledge that multimodality stems from culture, since, as suggested by Kress and Van Leeuwen (2001), every mode's interpretation in multimodality is influenced by culture. Modes such as open gesture, bodily movement and gaze, for example, can be interpreted as impolite and even rude in the culture of Kuwait, especially in an interaction with the opposite gender. The proposed research needs to investigate the challenges, particularly those relating to culture, that could pose barriers to the implementation of multimodality in the Kuwait education system.

As pointed out, culture plays a significant role; however, a closer look at Kuwait's society suggests that in the context of education multimodal teaching can be implemented, but it is the tradition, culture and religion in Kuwait that is likely to lead to resistance (Al-Nakib, 2015).

Future studies in multimodal learning should, therefore, portray to the reader that multimodality is not offensive to religion; rather, the research should navigate carefully and explain to the reader how multimodality can be used for the purpose of education. Most of the teacher educators and student teachers from Kuwait in the present study wished for a positive change in the education system (although the findings cannot be generalised due to the small sample). This is further supported by Al-Nakib (2015), who claims that if Kuwait's government wants the education system to improve, it needs to separate education from religion without disrespecting Kuwaiti culture and traditions. Therefore the methods of multimodal teaching will enable teacher educators to teach with multiple methods, such as visual, auditory and graphics.

These research findings further implied that in Kuwait there appears to be a gap between educational policy and teaching practice. The present study makes it clear that PAAET has policies in place for teachers to teach with technology and through class discussion, and to introduce new methods into their teaching. These policies are specifically made for PAAET teachers by the education officers working under PAAET. However, crucially the data presented here show very little implementation of these policies in practice. The question that is raised here is why this gap exists. A closer inspection of the problem suggests three factors that may be responsible. First, there is a lack of infrastructure in the education system. Due to insufficient or even a lack of communication between the different levels of the organisational structure of the education system, there appears to be a gap in the collaboration needed to improve the current system, in particular between the responsible parties, such as the general manager of PAAET, management of PAAET, the Minister of Education and other designated policy makers. Another problem associated with the infrastructure is the lack of inspection of each department. Inspection refers to informing the management of any issues related to policies not being implemented, in order to take action against the department that is failing to abide by the policies in place. The inspection can look at teaching policies and regulations, teacher and student progression, the curriculum, student outcome and the student-teacher relationship. At this moment, the Ministry of Education and PAAET encounter lack of inspection as supported by the literature and present data, which confirms that there is no third party to provide inspection.

The existence of this gap also stems from cultural beliefs, which makes it difficult for policy makers to put existing policies into practice. For example, PAAET guidelines state that teachers should use mixed methods and the latest technology in their teaching. However, every culture has particular expectations from a job role, which are shaped and influenced by its norms and values. Expectations from society shape the position of a teacher and in Kuwait, society expects teachers to be authoritarian and formal. Rubenstein (2006) found that the teacher's role and position is predetermined by the education system's underlying philosophies. The main aspects embedded in this underlying philosophy come from religion and culture, which shape expectations and set standards, especially for teachers. In Kuwait, the education system has a strong religious background; the Ministry of Education aims to transmit Islamic traditions through the curriculum and teaching, following Islamic principles or standards on attitude, behaviour, and respect for elders, dress, and no mixing of genders. These religious traditions, firstly, expect the teacher to have a strong personality and to have authority in order to hold power. The fact that there is little monitoring of the performance of teachers in Kuwait, gives teachers a lot of freedom to create their own rules and regulations. Paradoxically, teachers who utilise alternative methods in their teaching can be considered incompetent and unsuitable, as society expects a 'good' teacher to be firm and strict (Al-Nakib, 2015). This indicates that the Ministry of Education first needs to make policies in line with the country's culture and then has to make sure these policies are implemented through inspections and monitoring. This is beginning to take place as the Ministry of Education is making a plan to bring changes to the education system in Kuwait as proposed by the 2030 report. This suggests that within the boundaries of Kuwaiti culture the government slowly is likely to take action and improve the current situation of all levels of education (Al-Nakib, 2015).

2. What are teachers' and students' perceptions of technology-enhanced learning and its perceived problems?

The findings regarding perceptions of technology showed that both teacher educators and student teachers in England and Kuwait preferred mixed methods for teaching and learning. However, it was observed that the technology used in the lesson in England was more up-to-date than in Kuwait, where the teacher was teaching the basics of technology. Looking at

challenges, in Kuwait the teacher educators' attitude towards technology was perceived as problematic by the student teachers in Kuwait. The intention behind using technology for Kuwaiti teacher educators was mainly to monitor and control the student teachers in the classroom, whereas in England, the teacher educators and student teachers viewed technology as part of the pedagogy, and saw using resources and technological tools as facilitating teaching and learning.

Another problem brought up by teacher educators and student teachers in both England and Kuwait was a perceived generation gap. When researched, the theory of a generation gap between digital immigrants and digital natives holds little evidence (Helsper and Eynon, 2010). The findings from England and Kuwait support this. Participants from both countries suggested that with practice they were able to learn technology, and in Kuwait barriers to technology appeared to be a result of cultural factors.

Another problem addressed under this research question was a lack of technology-based resources and training for teacher educators. This was believed to be a problem for both England and Kuwait; however, for Kuwait the lack of technology-based resources was considered an especially major challenge, due to the outdated curriculum (the content and teaching pedagogy through which the students are taught) and lack of implementation of policy directives relating to the adoption of new teaching approaches.

Integration of technology is found in the data of England and is part of the pedagogy in teacher education training there. In contrast, the data from Kuwait showed that only basic technology is introduced to the student teachers. The integration of technology is partly attributable to a revision of the curriculum, like in England, where the teacher educator taught in line with the new computing curriculum. However, in Kuwait the teacher educator used outdated technology, because the curriculum does not accommodate the integration of new technology. The main barrier to integration of technology in Kuwait appears to be poor management. As discussed in Chapter 3 and the literature review (Chapter 2), Kuwait has a strong economy but lacks effective management in the Ministry of Education. Research also suggests that in Kuwait people are reluctant to accept technology for cultural reasons; they prefer to stay with traditional methods of teaching, because these are considered more credible than new teaching methods. Future research needs to explore these issues in more

detail, in order to understand the implications of the use of technology in education and which steps PAAET and the Ministry of Education need to take to incorporate technology in the curriculum, teaching and learning.

3. Are any multimodal pedagogic practices from England appropriate for the Kuwait College of Basic Education (PAAET)?

The aim of this research question was to identify appropriate practices from England that could be applied to Kuwaiti teacher education, while acknowledging the cultural differences between the two countries. The first appropriate practice found was the work placement. The thematic and multimodal analyses showed that in England work placement was an integral part of teacher education. The teacher educators in England, therefore, taught the course in the context of student teachers' work placements, facilitating their learning by applying theoretical knowledge to practical settings. In contrast, in Kuwait student teachers do not commonly go on placement, and although they do participate in a work placement for a limited time of two weeks towards the end of their training, they are only allowed to passively observe the classroom.

The second practice discussed was integrating technology in teaching and learning. The findings from England suggested that the teacher educators in England used the latest technology, such as Bee-Bots and iPads. In Kuwait, the teacher educator mainly taught basic Microsoft Office skills and even then, this was Microsoft Office 2003, which can be considered outdated.

The third practice that could be adopted from England are teaching approaches or styles informed by learning theories. In England, teacher educators appeared to use a combination of many learning theories, including behaviourism and social learning theory, in conjunction with social constructivism/modelling and cognitivism, while the teacher educators in Kuwait appeared to be utilising approaches grounded in behaviourism. It is important, however, to acknowledge that Western learning theories cannot be applied to the education setting of Kuwait without acknowledging their cultural and sociopolitical implications.

The discussion of this research question ended with guidelines for a trial teacher education course based on multimodality for Kuwait (see Chapter 9). These guidelines were based on

the discussion of what could be appropriate practices and make recommendations on which practices from England could be applied in Kuwait. The guidelines acknowledged the major cultural differences between the two countries and addressed the challenges and solutions for the implementation process.

10.2 Contribution to knowledge

To my knowledge this is the first study in the Arabic and Kuwaiti literature that observed the educational system of teacher education training through the lens of multimodality. The concept of multimodality is new to the educator culture of Kuwait, and presents certain challenges in the cultural context of Kuwait. Culture is likely to influence meaning-making with respect to modes in multimodality. Every culture has its own interpretation of a mode (Jewitt, 2008). The data of the present study, in line with literature, indicates some cultural barriers to be a concern when applying new concepts of pedagogy to Kuwaiti education system. The present findings add to the academic knowledge, especially concerning the relationship between modes and culture. Current literature, as stated in the literature review (Chapter 2), demonstrates that culture is conjoined with mode and its interpretation. The present study strengthens this argument and opens new windows for further research, such as investigating learning theories in relation to multimodality, as the present study informs us that social constructivism encourages teachers to use modes while teaching. Another aspect is theoretical knowledge: the present study adds to the argument that multimodality is a theory that lends itself to a deeper understanding of how multimodality is embedded in teaching and its impact on learning.

The present study equally contributes to teaching practice. For example, teacher educators from Kuwait did want to learn about different teaching approaches and receive training. I believe this study suggests that multimodality, or at least aspects of it, could be introduced. Once trained, the teacher educators are likely to transfer their new knowledge about the theory and practice of multimodality to the student teachers, who are the future teachers in schools and higher education. The video analysis in the present study provided natural observations of the classrooms in England and Kuwait, which strengthened its comparisons between England and Kuwait. This method contributed new findings and perspectives on the

need to improve student teachers' training and experience in Kuwait. Another contribution to the existing literature is that the present study is the first to compare English and Kuwaiti teacher education especially in relation to the use of technology. The study also focuses specifically on teacher education to develop student teachers' use of technology. This is a major strength of the study, because it has brought forward the views of student teachers and teacher educators in England and Kuwait on the topic of technology, which has not been done before.

I believe this study will contribute to the improvements proposed by the report recently published by the Ministry of Education in Kuwait. This report proposes that by 2030 the education system of Kuwait will have undergone a revolutionary transformation. However, although the report mentions huge investments in the improvement of the education system in Kuwait, it fails to describe how these investments will be distributed and which aspects of the education system need developing (Al-Nakib, 2015). I believe the findings of the present study can assist the Ministry of Education in deciding how to allocate the budget for improvement of the education system. Every education system in the world is built on the quality of its curriculum and teaching; likewise, Kuwait needs a strategy to improve and monitor these two factors. The findings of the present study can be used by the Ministry of Education to invest capital in teacher education training that will produce qualified, knowledgeable and skilful teachers. The findings will be brought to the attention of the Minister of Education and whomever they may concern in the education community in PAAET, by way of an invitation letter for a formal committee meeting. This meeting will include the general manager of PAAET, the head of the department for the College of Basic Education and myself. The aim of this meeting will be to present the findings from the present study and introduce the ideas to the minister with the intention of improving teacher education training in the future.

In November 2013, a meeting of the biannual Kuwait-England Joint Steering Group took place in London, chaired by the Minister of State for the Middle East and North Africa, Hugh Robertson (MP); and the Kuwaiti Undersecretary at the Ministry of Foreign Affairs, Ambassador Khaled Al-Jarallah. In this meeting the representatives of the British Council and the Ministry of Education discussed the formulation of a Memorandum of Understanding (MOU) between England and Kuwait to improve Kuwait's education system through the

support and advice from England's education management. The MOU would specifically discuss teacher education training in higher education. The British Council and Ministry of Education hoped to establish the MOU before the next meeting (Gov.uk, 2013). In reference to the present study, I believe the findings of this study provide a platform to understand the changes needed to improve teacher education training in Kuwait, particularly with respect to applying the most appropriate pedagogical practices from England.

The findings of the present study can be presented to the Ministry of Education, which can further present them to the next biannual meeting to gain extra support from England, especially with respect to providing training for teacher educators in Kuwait by introducing the student-centred approach, the integration of technology and multimodality.

This study was sponsored by PAAET, which wanted the researcher to investigate the flaws and problems currently present in teacher training. I believe this research confirms and reinforces the finding from the existing studies that teacher education in Kuwait provides inadequate training to its student teachers. The findings of this study provide rich insights into the problems teacher educators and student teachers are currently experiencing. Therefore, this study can play an important role in bringing these issues to the forefront and can act as an indicator for PAAET that action needs to be taken now.

To my knowledge this is the first study to use the video analysis method alongside the interview method to investigate the problems of teacher education in Kuwait. This process of triangulation gives credibility to the findings of the study. Also, this study takes away the novelty of these methods, which can be used by future researchers in Kuwait and outside.

The study has the potential to provide positive information for the teacher educators, student teachers and other faculty members of the College of Basic Education. This study introduces new ideas about teaching methods, especially mixed methods approaches, which can facilitate the teaching and learning process. The findings from the thematic data indicate that the majority of teacher educators in Kuwait from the College of Basic Education, which is the only public institute for teacher education under the PAAET, were still using traditional methods in their teaching, without making use of mixed methods. Therefore, this study can play an important role in guiding the teacher educators in using a variety of teaching methods, which include technology, visuals, group activities, classroom discussion and of course the

traditional style of lecturing. This can be achieved through workshops, training courses or seminars organised by PAAET for teacher educators on these varying teaching methods. Also, the guidelines given in the previous chapter can be a starting point to introduce teachers to multimodality and technology.

The present study also confirms and strengthens similar findings from other studies that Kuwaiti student teachers are not comfortable and satisfied with the current teacher education training provision. Hence, this study should be a motivational drive for PAAET to investigate the implementation of the suggested trial course for teacher educators at PAAET (see Chapter 9, guideline section).

Finally, the present study also directs PAAET's attention to the implementation of current policies. The findings of the present study echo the results of other studies, namely that although PAAET has policies that encourage the teaching staff to use technology and provide the students with resources, there appears to be no implementation in practice. The little implementation that is apparent in the university is only the result of personal efforts by individual teacher educators. I, therefore, believe that the present study will encourage PAAET to address this issue.

10.3 Recommendations

In the light of results and existing literature, various issues concerning Kuwaiti teacher education training have come to the forefront. The following recommendations are suggested to improve teacher education in Kuwait.

- PAAET should train teacher educators on how to blend traditional and technology-based methods; for example, using resources such as new educational software, interactive whiteboards, and state-of-the art technology. This will enable teacher educators to use different ways of representing information and lessons will become more engaging and interactive for the student teachers. The College of Basic Education should also recruit technology professionals who can train the teacher educators on the latest technology. This will increase the quality of the teacher educator training, as the teaching staff will be up to date with state of the art

educational technology. The student teachers will benefit from the knowledge and skills passed onto them through their training, and carry the same knowledge to schools when they begin to teach.

- PAAET should carry out an audit to determine the current multimedia resources available for the teacher training at the College of Basic Education and improve the system by introducing recent technology such as laptops, projectors, educational software, applications, tech gadgets and online databases that provide access to journal articles.
- In order to ensure that policies translate into changed practices, authorities such as the Ministry of Education and PAAET should employ a team of trained individuals who will be responsible for checking and monitoring the implementation of policies.
- The Ministry of Education and PAAET should advocate student-centred teaching approaches in which students are active rather than passive learners to improve teacher education in Kuwait.
- PAAET should introduce parallel work placements in teacher education training. Secondly, PAAET should form a partnership network similar to that in England with schools in different districts of Kuwait in order for the student teachers to have secure placements. Student teachers should be allowed to actively participate in the teaching in placement schools under the supervision of mentors and school teachers. This will ensure that student teachers actively take part and bridge the gap between theoretical and practical knowledge.
- The given findings indicate that there is a lack of technology for the teachers to use in the public education sector, which includes schools and university. The Ministry of Education can provide computers, technological resources such as iPads and software specifically for the use of student teachers in their training. The investment should also be put towards strengthening the skills and knowledge of teacher educators who

are responsible for training the student teachers, which leads to my main recommendation.

- PAAET should organise training on multimodality and its use in teaching and learning for teacher educators and student teachers, drawing on overseas' expertise if necessary. This will raise awareness of the benefits of multimodal teaching approaches, improving teacher education in Kuwait. It is necessary for the student teachers to be given training or it being made part of their syllabus, because they are not aware of multimodality and learning it from teacher educators through modelling may not necessarily work.
- In order to make my research findings available for other PAAET researchers, teachers and students, I recommend that an online library should be provided. PAAET currently does not share an online library where researchers can upload their theses or other publication in order to exchange information and share ideas, which would increase knowledge for the benefit of all the students and teachers. Therefore, the designated authorities such as PAAET should organise an electronic digital library where full research can be published and used as evidence to bring changes to the teacher education training in Kuwait.

10.4 Limitations of this research

The present study was qualitative in nature, which can be criticised by some for being biased and subjective. For the present study, a qualitative approach was, however, necessary to uncover the dynamic issues of culture and practice that surround teacher education in Kuwait and compare it to teacher education in England. When conducting a qualitative study, it is difficult to avoid influencing the research process and results due to subjective interests of the researcher, which cause bias. However, I took steps to ensure that I did not influence the study, especially during the data analysis. Transparency was observed in the data analysis process, as all stages of the process are presented in this thesis, exemplifying the criteria I used to arrive at the findings of the present study.

Another limitation is the sample size of the study, which makes it difficult for the findings to be generalised to the rest of population. In qualitative research a small sample size is sufficient, because its nature is to explore the problem and issues in-depth rather than to obtain answers from the participants through close-ended questions.

The type of tools employed to collect the data can be recognised as a limitation, as they can threaten the internal validity of the study. As discussed in the methodology chapter, video analysis and interviews have disadvantages, but in the present study both of these methodologies have been used in a triangulation process, which strengthens the findings. The analysis of the video and interview data confirmed and supported the emerging themes such as teaching styles, technological resources and pedagogical differences between England and Kuwait.

This study was a comparison between England and Kuwait. In Kuwait the data were collected in the Arabic language and then translated from Arabic to English. In qualitative research, translation is considered a limitation, because of the risks the translation process presents to the accuracy and credibility of the data presented. The risk to credibility is reduced in this study as the researcher is a native speaker of Arabic and aware of the cultural differences between England and Kuwait. The researcher is also fluent in English, which ensures greater accuracy in the translation. Additionally, some of the references used in the present study for Kuwait were in Arabic, such as policies and newspaper articles. Again, the researcher, being an Arabic native speaker and fluent in English, was able to translate the references used.

The present study has a gender-bias, especially in the Kuwaiti context, due to cultural barriers. All the student teachers in the Kuwaiti sample were females. This is because the researcher is a female and in the culture of Kuwait there is a strict segregation of male and female students in the governmental sector. I had access to male students, but due to cultural differences I felt more comfortable interacting with female students. Therefore, it was most appropriate to select female participants in Kuwait rather than males. In order to partially address the imbalance with respect to gender issues, I interviewed male teacher educators in Kuwait.

10.5 Future research

The following suggestions for future research are based on the findings of the present study, and focus on improving current teacher education in Kuwait and applying appropriate practices from England, taking cultural differences in to consideration.

- In light of the findings, the next logical step would be to carry out an ethnographic study in Kuwait in which teacher educators are observed in a natural setting; not only during an ICT lesson but in other settings as well. This would enable more in-depth study of the present teaching culture and approach of teacher educators in Kuwait.
- If PAAET chooses to develop the trial course proposed in the present study, this should include research that aims to understand its impact on teacher education and students' understanding of teaching and applying new approaches, such as mixed methods, learning theories and multimodality. Moreover, the trial course should be evaluated to gain feedback on its strengths and weaknesses.
- The present study suggests that applying practices from England could run into cultural barriers in Kuwait. In order to understand these barriers in-depth, a mixed method study should be carried out that would first interview teachers, students and faculty on issues such as technology, teacher-student relationships, and student-centred approaches. The findings from the interviews should inform the design of an attitude questionnaire that should be distributed to a large sample of teacher educators and students. This could reveal possible solutions in relation to overcoming the cultural barriers in Kuwait with respect to education.
- The present study focuses on the current practice of teacher education in Kuwait and not on its outcomes. In order to extend the scope of the findings of the present study, it would be appropriate to next study the implication of the findings in practical settings, investigating specifically the student teachers' experience of work placements in Kuwaiti schools.

- Once the implementation process of revised policies and practices is put into place for the teacher education training in Kuwait, a longitudinal study should be carried out by PAAET. A longitudinal study would be ideal to help understand how successful a policy has been in teacher education and study its outcomes as well. This study may also reveal strengths and weaknesses in relation to policy implementation and propose potential solutions for further improvement.
- This present study positively contributes to the scope of future research. The findings suggest many topics, such as teacher training, teachers' attitude, and reflection, teaching style, work placements and integration of technology, which can be extensively explored by PAAET in the future. Individual research on each factor will allow PAAET to discover underlying aspects more in-depth, as well as the strategies and solutions required to increase the standard of teacher education training in Kuwait.

As a concluding remark, I would like to discuss and reflect on the learning I experienced during the process of my research. My research was a comparative study between England and Kuwait. At the beginning of the study, I found myself thinking from the perspective of a Kuwaiti teacher; however, during the course of my research, I realised that this was likely to influence its outcomes. Extensive reading and reflection changed my thinking from that of a Kuwaiti teacher educator to a researcher who is curious to discover genuine differences and similarities between England and Kuwait, in order to discover and understand the nature of my study and accomplish its aims. Furthermore, conducting this research has enabled me to discover new ideas for future research that can attract other researchers and teacher educators in the field of teacher education in Kuwait. This future research should investigate the cultural barriers to applying Western educational ideologies in Kuwaiti teacher education, such as learning theories and teaching approaches (such as teacher- or student-centred approaches). The present study can, therefore, play a considerable role in opening up new aspects of future research in teacher education, which could influence current policies.

Finally, I believe that through this research I have become more aware of my position as a teacher in higher education in Kuwait. I feel that I know more about teaching methods,

multimodality and technology, and believe that I can take these practices with me and make a contribution to changing practices of others as a teacher educator in Kuwait.

Appendix 1: Consent forms and interview questions

Appendix 1 (a) Consent form (Kuwait/England)



Dear Student/teacher

The interview in which you are being asked to participate is part of a research study that is focused on examining the changing practices of student teachers and teachers in order to develop more effective teaching and learning materials.

This study will explore whether/how university student teachers and qualified teachers received adequate training in the design, creation and the use of technology for learning, and whether/how graduate student teachers receive training in how students learn by using technology effectively.

The study's findings will help to develop understanding about the effects of individual differences in backgrounds, preferences, abilities and experiences, and to develop appropriate and effective teaching and learning materials.

Before you decide if you would like to take part in this interview, it is important for you to understand why the research is being done and what it will involve. Please take time to read the attached information sheet carefully and discuss it with others if you wish. This information covers the most commonly asked questions, but please ask if there is anything that is not clear or if you would like more information. Please take time to decide whether or not you wish to take part.

Thank you for your time and co-operation.

Yours sincerely

Monirah AL-Salim
Researcher
School of Education
Manchester Metropolitan University
Designer_82@hotmail.com
Mobile: +44 74484044



Participant Information Sheet:

Study title: Design and evaluation of technological learning approaches for teacher education.

The purpose of the study is to:

- Examine the concept of technology in learning and teaching,
- Investigate the effectiveness of technology with courseware.
- Consider perceptions of how the use of technology applications for students and teachers.
- Understand the coverage of the current technology usage by students and teachers, their skills, experiences, and their willingness to use technology.

Why have I been asked to take part?

You have been invited to take part as you are currently a student teacher at Manchester Metropolitan University. A convenience sample of students and teachers has been selected to take part in this initial study.

Do I have to take part?

It is up to you to decide whether or not you take part. If you do decide to take part, we would like you to sign the attached consent form. If you do decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time or a decision not to take part, will not affect you in any way.

What will I have to do?

If you agree to take part in the study you will be invited to take part in an interview that will take around 10-15 minutes. You will be asked to answer a series of questions in the interview about your previous and current experiences of teaching

and learning materials and the use of technology, your personal preferences, your background and skills. You are free to decline to answer any of the interview questions.

Will my name appear in any written reports of this study?

All information that is collected about you during the interview will be kept strictly confidential and all data will all be anonymised.

What will happen to the data generated?

Each interview will be recorded in audio format, and sent for transcription. If you wish, you may see a full transcript of your interview and be given the opportunity to make any amendments to the transcript you wish. These transcripts will be analysed by myself to draw out themes and issues. All paper documents will be kept in a locked filing cabinet, computer records will be password protected, any data or direct quotations will be made anonymous; they will be kept for 2 years and then destroyed.

How will I be compensated for my time?

All participants will receive a £15 Debenhams gift voucher in appreciation of the time given up to take part.

If you would like to take part in the research please read and complete the attached consent form. Thank you for taking the time to read this information.

Yours sincerely

Monirah AL-Salim
Researcher
School of Education
Manchester Metropolitan University
Designer_82@hotmail.com
Mobile: +44 74484044



Participant Consent Form

Title of project: Design and evaluation of technological learning approaches for teacher education.

Principal Researchers: Monirah Al-Salim, Doctoral Researcher, Education and Social Research Institute, Manchester Metropolitan University.

I have read the above information sheet and I am aware of the purpose of this research study. I am willing to be part of this study and understand I can contact the Principal Researchers if I need any further information.

My signature certifies that I have decided to participate having read and understood the information given and had an opportunity to ask questions.

Igive my permission for my data to be used as part of this study and understand that I can withdraw at any time and my data will be destroyed.

Signature.....Date.....

Direct quotes

I give my permission for direct quotes from my interview to be used as part of this study.

Signature.....Date.....

I have explained the nature of the study to the subject and in my opinion the subject is voluntarily and knowingly giving informed consent to participate.

Researcher.....Date.....

- 1- What subject do you specialise in? At which stage?**
- 2- Do you use technological resources in your classes?**
 - What type of resources do you use?
 - If not, what do you use?
- 3- Explain how you use resources in your classes?**
- 4- How do you think the use of technology compares with more traditional methods of teaching in the classes?**
- 5- What would you say (if any) are the difficulties on the use of technology to support teaching?** (E.g. Lack of training/knowledge/lack of money/Preferences/Limitation of resources).
 - If not, what (if any) would you say are the difficulties of the use of traditional method of teaching?
- 6- In what ways, if any, has technology affected the student/teacher relationship?** (E.g. Attention span of student, ease of teaching, creating discussion, more interesting).
 - *If non technological*, give me an example of how traditional teaching methods have affected student/teacher relationship? (E.g. better classroom interaction, improved grades, improvement in class attendance, easier to understand).

1- What subject you will specialise in? At which stage? (Nursery/primary/preparatory/secondary)

2- How do you think technology used on your course will help with your teaching/or leaning training?

- Tell me about the last time that technology was useful for learning, can you explain exactly how it was useful?
- If not – why not?

3- What difficulties do you think you may encounter when using technology in your subject area? (E.g. Lack of training/knowledge/lack of money/preferences/limitation of resources).

4- What type of technology might you use in your subject area?

- Give an example of any learning activity you have designed that makes use of technology? (E.g. projects/activities/workshop)
- Would you prefer to use technology or more traditional resources in the classroom?

5- What is your experience of technology as a teaching resource on your courses? For example, (computers, devices, you tube, social media, software etc.).

- *If non technological - What is your experience of more traditional methods of teaching, for example: (E.g. blackboard / whiteboard pen and paper. Etc.).*

6- In your opinion what effect do you think technology has in the classroom as a whole? (E.g. Teaching/Learning/activities/ workshop. Etc).

Appendix 2: Member checking

Email sample from England

Participant one:

Dear Mrs Julie

Hope you're well...

My name is Monirah. Last year you took part in my research. It is part of the research process for me to send you back the transcripts for you to go through if you wish. I have not kept any of your personal information and your identity has been kept anonymous. Please just acknowledge that you receive the transcripts. I would really appreciate your reply as your response will be a way to validate the transcripts.

Thank you for your time and consideration

Kind regards
Monirah

Dear Monirah,
Thank you for your email. I hope your research has gone well!

I acknowledge receipt of the transcript and agree the content.

Good luck,
Julie

Julie Scanlon
Principal Lecturer
Faculty Internationalisation Lead

Department of Professional Development and Educational Innovation
Tel: +44(0)161 247 5071
email: j.scanlon@mmu.ac.uk

Faculty of Education
Manchester Metropolitan University
Cheshire Campus
Crewe Green Road
Crewe
CW1 5DU

Participant two:

Dear Mr Tony

Hope you're well...

My name is Monirah. Last year you took part in my research. It is part of the research process for me to send you back the transcripts for you to go through if you wish. I have not kept any of your personal information and your identity has been kept anonymous. Please just acknowledge that you receive the transcripts. I would really appreciate your reply as your response will be a way to validate the transcripts.

Thank you for your time and consideration

Kind regards
Monirah

Hi Monirah.

Lovely to hear from you - hope it's going well. I'm fine but looking forward to retiring in 9 months time! This all seems fine to me - use as you will.

Good luck for the future.

Tony

Tony Poulter

Senior Lecturer in Computing/Year 1 Leader

Faculty of Education

Manchester Metropolitan University

Crewe Campus

Tel. 0161 247 5029

a.poulter@mmu.ac.uk (work)

tony.poulter@btinternet.com (home)

<http://primaryteacherstoolbox.weebly.com/index.html> (Website)

Email sample from Kuwait

Dear Dr Mohammed

Hope you're well.

My name is Monirah. Last year you took part in my research. It is part of the research process for me to send you back the transcripts for you to go through if you wish. I have not kept any of your personal information and your identity has been kept anonymous. Please just acknowledge that you receive the transcripts. I would really appreciate your reply as your response will be a way to validate the transcripts.

Thank you for your time and consideration

Kind regards
Monirah

From: **M ALQattan** (el3omdaz@hotmail.com)
Sent: 14 November 2015 20:09:28
To: Designer~ (designer_82@hotmail.com)

Dear Monirah,

You have my 100% approval for you to use the transcript in your research or in any other way that you might need to use it in .

Wish you the best بالتوفيق 😊

Sincerely
M. ALQattan

Appendix 3: Translation

Appendix 3 (a) Sample of video translation from Arabic to English for Kuwait

الهيئة العامة للتعليم التطبيقي والتدريب - كلية
- تفريغ الفيديو -
مقطع فيديو (حصه دراسيه)
الفترة الزمنيه للتفريغ بالفيديو : 54 : 00
المعلم : ايهبط على تبويب تخطيط الصفحه فوم
تحت تخطيط الصفحه مكتوب اوامر هل ترونها ؟
الطلبه : نعم .
المعلم : احد هذه الاوامر ماهي ؟
المعلم : هي الاتجاه
المعلم : ايهبطي على الاتجاه واختاري اتجاه افقي
المعلم : هل لاحظتو تغير في المسطره المكتوب اعلى
الصفحه 1 سم
المعلم : الان الصفحه من 1 سم الى غايه كم ؟
الطلبه : 24 سم
المعلم : صح الى غايه 24 سم ، معناها الصفحه اصبحت
بالعرض .
المعلم : لاحظتو تحت في الصفحه توجد نسبه
العرض المنويه ، خليه 95٪ لتوضيح الهامش
اليمين والهامش اليسر .

المهنية العامة للتعليم التطبيقي والتدريب -

تفريغ التسجيل الصوتي

المشارك: الباحث: هل تستخدم الأجهزة التكنولوجية في تدريسك؟

المشارك: لا

الباحث: وإن كنت لا تستخدم الأجهزة الإلكترونية فما هي الطريقة التقليدية؟

المشارك: الشرح والكتابة والصورة البيضاء.

الباحث: هل يوجد أجهزة إلكترونية بالفضل مثل جهاز العرض الإلكتروني (بوجيتور) أو أيباد للطلبة أو حاسوب

المشارك: لا يوجد أجهزة متوفرة.

يمكن الطالب بحضر أجهزة الخاصة.

الباحث: ما رأيك بالمقارنة بين استخدام التكنولوجيا مع استخدام الطريقة التقليدية في التدريس بالفعول الدراسية؟

المشارك: أنا لم أجرب استخدام الطريقة الإلكترونية والتقليدية معاً بالتالي لا أستطيع المقارنة بين الطريقتين. لكن أعتقد أن الطريقة الإلكترونية أفضل لأن الطالب يستطيع استخدام التسجيل للحاضرين بدلاً من الكتابة حتى يستطيع التركيز في الشرح ولا يصيب وقتاً في الكتابة.

المشارك: بالنسبة للكويت بعد اعتماد كلي على المدرس لا يوجد تعلم ذاتي للطلبة، لاحظت أن متوابعهم ضعيف وحتى المستوى العام لنظام التعليم بالكويت يختلف عن نظام التعليم بالخارج.

الطالب هنا لا يلعب دور في جميع المعلومات ولا في قراءة محتوى الكتاب بل يدرسون ويحفظون المكتوب على الصبورة.

Appendix 4: The Cambridge International Examinations report

CAMBRIDGE INTERNATIONAL EXAMINATIONS							
Examiner's feedback on assignment for							
DIPLOMA FOR TEACHERS AND TRAINERS							
Centre Number	K	W	5	0	0	Centre Name	PAAET
Candidate name	HUSSAIN ISMAEL MAIRZA						
Candidate number	0014						
PAAET Institute	SEC G						
Module	MODULE 2: PRACTICE						
Submission date (dd/mm/yy)	06/08/08						
Result	DISTINCTION						
<p>This is an excellent assignment that merits a distinction grade.</p> <p>The design of both lessons clearly evidenced an emphasis on planning for active differentiated learning with a large group of female students. This was a change from your normal practice but the evaluation of both lessons indicate that not only were the learning outcomes achieved by the students, but also they gave you some very positive feedback on how much they enjoyed learning using these different approaches.</p> <p>Developing active learning methods for Information Technology is not easy. In both lessons you were prepared to take risks and try out a range of active learning methods that involved group work as well as peer support and assessment. You back this up with a range of formative assessment strategies to continually check student learning in terms of developing their skills, knowledge and understanding. This also provided you with helpful feedback on the effectiveness of your teaching.</p> <p>You clearly put a great deal of time, energy and imaginative thought into the preparation of both lessons. Not only did you consider the student learning activities and the flow between them, but also the management of the learning environment. This clearly helped to promote active learning and a positive social environment for students to learn.</p> <p>The assignment evidences reflective thinking 'in action' as well as 'on action' (see the work of Schön). As you were trying out some new teaching and learning techniques you were having to making adjustments as each lesson progressed. Whilst this meant the transition and timing between activities was not always as smooth as you would have liked, the learning objectives were achieved.</p> <p>(Contd)</p>							

The learning activities were clearly differentiated to stretch the skills, knowledge and understanding of the more able learners. This also meant you could spend time on a 1:1 or small group basis with students who were finding some of the later activities more challenging. The important point is that in the range of tasks and activities undertaken by the students, at all stages the emphasis was on making them think. As you rightly point out this promotes 'deep' rather than 'surface' learning. I was impressed throughout the assignment how you related different educational theories to your developing change in practice. I would encourage you to keep doing this not only in future assignments but in your continuing professional development

I think you are reflective practitioner who would benefit from more incisive constructive feedback from a lesson observer and your learners. It is understandable students want to please the teacher, but for future practice try to get them to give constructive feedback on their learning as well as your teaching. There are a variety of ways of doing this (see Ian Barker's book *Teachers and Trainers* Chapters 7 and 8). You may also like to consider trying some team teaching so that you and a peer or 'critical friend' can feedback to each other as part of a professional dialogue using the observation feedback form.

It is good to see you are now putting more emphasis on the facilitation of learning rather than just being a trainer who imparts knowledge in a didactic manner. You are constantly thinking of different ways to motivate your learners, both the able and the less able. Throughout the assignment you describe how you are trying to motivate the learners and make the learning more meaningful. It's great to see you doing this and one outcome of this seems to be that the student retention rate has improved significantly. This should lead to improved pass rates.

In the two contrasting lessons you were prepared to take risks. Your reflective practice clearly indicates that most, but not all, the learning activities were successful. The important point is that you used the observer and learner feedback, combined with your own reflective journal, to indicate what you would do differently next time to further develop those parts of the lesson that didn't fully achieve your expectations - this is excellent reflective practice.

You are an experienced trainer who is developing their reflective practice skills to improve future professional practice. This assignment clearly demonstrates how your professional practice is changing and will continue to change. As a consequence, the students' learning experiences will also change. The indications are there already that they prefer active learning methods and enjoy taking part in the tasks. This will present new challenges to you and your learners, but continue to experiment and take risks.

One last point : we see that you completed Module 1 in Arabic and now Module 2 in English. The regulations for the Diploma are that candidates should enter in one language medium rather than change between languages as they go through the sequence of modules. From now on, given your success with this module in the medium of English, we would encourage you to continue with Modules 3 and 4 in English.

Keep up the excellent work!

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Examiner's feedback on assignment for

DIPLOMA FOR TEACHERS AND TRAINERS

Centre Number	K	W	5	0	0	Centre Name	PAAET
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Candidate name	HUSSAIN ISMAEL HUSSAIN MAIRZA
Candidate number	0014
PAAET Institute	INSTITUTE SECRETARIAL STUDIES - GIRLS

Module	MODULE 3: ASSESSMENT: ASSESSING PROGRESS AND ACHIEVEMENT
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Submission date (dd/mm/yy)	14/03/2010
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Result	PASS
--------	------

Congratulations Hussain achieving a pass grade.

You clearly understand the differences between formative and summative assessments and how they are used to monitor learners' progress and measure achievement. You use a wide range of formative assessments to review and monitor students' progress in their learning and I like the way you are trying to embed it as part of the learning process. You have also demonstrated a clear understanding of the differences between qualitative and quantitative methods of formative assessment. However, there is still too much of a focus on the marks or grades for these tests rather than informative feedback on what the student needs to do to improve future learning and performance. You refer to the work of Black and Wilian who emphasise this exact point so try and put their research theory into practice.

You take great care in the design and production of both formative and summative assessments and how they test the learners' skills, knowledge and understanding related to the learning objectives. This is good practice and helps to evidence their validity and fairness.

Part B of the assignment needed to be more reflective of your existing practice and what might change in the future. Don't be afraid of expressing your opinion of the different types of assessment methods you are often 'forced' to use rather than choose to use. This is where the reading around the subject area of assessment will help in the analysis and evaluation of existing and future practice. Trying to change and update assessment procedures and practice within any educational institution is often a long drawn out and frustrating process but I wish you every success in trying to change the hearts and minds of colleagues.

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Examiner's feedback on assignment for

DIPLOMA FOR TEACHERS AND TRAINERS

Centre Number	K	W	5	0	0	Centre Name	PAAET
---------------	---	---	---	---	---	-------------	-------

Candidate name	HUSSAIN ISMAEL HUSSAIN MAIRZA
Candidate number	0014
PAAET Institute	INSTITUTE SECRETARIAL STUDIES - GIRLS

Module	MODULE 4: EVALUATION
--------	----------------------

Submission date (dd/mm/yy)	14/03/2010
-------------------------------	------------

Result	PASS
--------	------

Thank you Hussain for your assignment and congratulations achieving a pass grade.

You have put a great deal of study time and effort into completing this assignment and there is sufficient evidence in Parts A and B to demonstrate an understanding of the evaluation process and how it can help to improve your teaching and your students' learning. I applaud the way you have researched and read around the subject but what you need to do in the future is to more fully reflect on your existing practice. This will help when updating your Professional Development Plan to focus on the actions required to improve your teaching and the students' learning.

Support from your line manager as well as discussions with other mentors should also help to keep focused on the significant areas for improvement you need to make in your professional practice. It's important to identify practically rather than theoretically how you intend to facilitate more active learning into the lessons. Hopefully this will then give you insights into why you do what you do and how theory simply underpins professional practice rather than drives it.

Part B of the assignment reads more like an academic essay rather than a reflective report but does evidence how you are thinking about how to improve your teaching and the students' learning. It is important to embed the concept of on-going evaluation of learning and teaching into your practice to help keep you up-to-date with current practice.

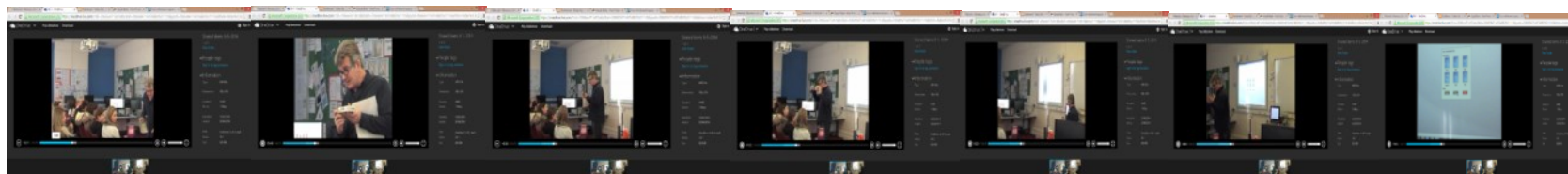
Appendix 5: Multimodal data analysis

Appendix 5 (a) Macro sample: England

Scene 4 class activity/ introduction to devices)

Timing: 15.00- 20.00 minutes

snapshots:



Timeline: -----15.30-----15.48-----16.30-----17.22-----18.21-----18.48-----19.20

Description:

The teacher begins by talking about the experiment the student will be conducting and for that they need to find a dark place (for light experiment). The teacher then introduces the students to a device which is a form of seven data loggers and is called easy sense cube that is appropriate for primary school and it has a sound sensor, a temperature sensor and a light sensor. The teacher mentions what can we do with the light sensor and how the experiment can tell us which colour glass is the best by shining a torch through it. And keep record numbers for each colour e.g. blue, green, red and yellow, so the students know which number on the graph is which colour. The teacher then poses a question to the class that readings should be taken without a coloured glass but why. A student answers that because the experiment needs to have a control so the readings can be compared. The teacher then tells the class what they need to do to conduct the light experiment. Firstly the teacher explains how to operate the device which takes recording by guiding the class through the different buttons for example they need to

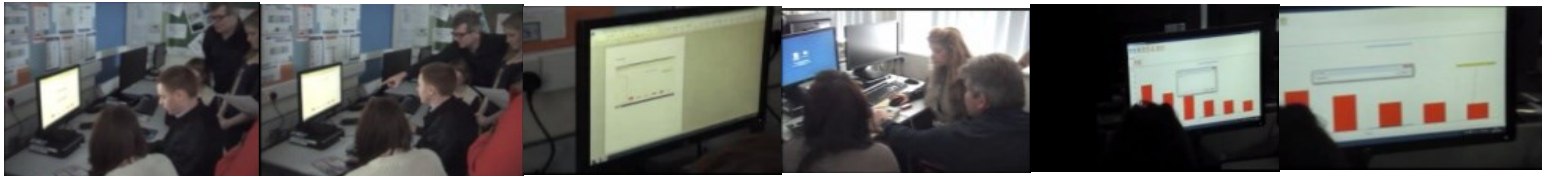
go to the snapshot mode in order to capture the torch shining through the glass. The teacher tells the student that green button is for recording and press the red button when finished. All the data is saved in the device and can be connected to a computer via USB. The teacher further elaborates on how to retrieve the data on the software and guides the students to the software.

The teacher opens the easy sense software and as the menu pops up the teacher guides the students to which item they need to click and they need to click the remote button to log the data. The teacher further adds that the device can be left like that for checking the temperature of the room overnight. Moving back to the subject the teacher tells the student how to retrieve the data by clicking on what you have recording and unselecting the items which you have not and to get the graph and the students are able to load data.

Scene 7 (*experiment*)

Time: 30.00 – 35.00

Snapshots:



Timeline: 30.20-----30.38-----32.22-----33.20-----34.14-----34.52-----

Description:

The teacher is helping individual groups with their experiments. The teacher is explaining to the student about what to click in order to make the graph and how the graph should be labelled. The students give a title to the graph according to the teacher's guidelines. The teacher then instructs the student to save the work and the student asks that will the document be saved in the program and the teacher says yes. Other students in the group also help him in this task. The teacher then instructs the student to open Word document and print screen the graph there. The teacher then mentions to the student a title in the Word document which is graph produced by data handling software. Once the teacher is done with these groups, he shouts to the class if they are done with the experiment to come and sit in the centre again for the class to resume. He again reminds the students to be quick as they have a lot more to do. At the same time a student calls from the back and says can you help us please and the teacher says yes and says that's what I am here for. The teacher guides the student on the computer to click on programs

comes to applications then 'science' and makes sure that the data logger is connected to the computer. The teacher tells the student what to click on the software and a graph appears. The teacher immediately asks which glass was the best in the sunglasses experiment and the students respond six.

Appendix 5 (b) Macro sample: Kuwait

Scene 4 (*continiton of the class exercise*)

Time 00.00- 12.37

Snapshots



Timeline -----00.40-----2.21-----5.19-----9.27-----12.14-----

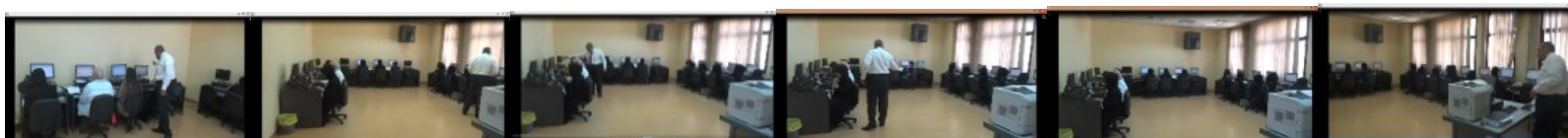
Description:

The students are busy in their activities and the teacher is going around the class explaing and helping students. time to time students have asked for help and the teacher has immediaetly responded.

Scene 5 (*continuation of class exercise*)

Time 00.00-16.32

Snapshots



Timeline-----01.49-----03.04-----5.47-----8.40-----10.27-----14.31-----

Description:

The students are finishing their work and the teacher is helping them. The teacher at the end reminds the student that they have 5 minutes remaining and if anyone takes 1 or 2 minutes extra, marks will be taken off. The teacher also says that those of you who finished the exercise may leave.

Appendix 6: Thematic analysis

The thematic analysis was based on the Braun and Clark (2006) phases. Yellow highlights indicate coding on the raw data, which is phase two of Braun and Clark's theory.

Appendix 6 (a) Sample of transcripts plus coding: Kuwait

Dr Ibrahim: Don't care much about the painting itself, but I care more about the procedure done to make it. (Wider education – Benefit of technology)

Researcher: Excellent, so this is something like pictures with text.

Dr Ibrahim: Pictures, text and video.

Researcher: This is all in snap shot.

Dr Ibrahim: Yes.

Researcher: So you have many software programs that you use?

Dr Ibrahim: Yes, many.

Researcher: Good.

Dr Ibrahim: I always try to use the new media, especially, the social media with the students. For example, I use Twitter with the students in class, we use hashtags in the class itself. So instead of asking the students to raise their hands to ask questions, they can ask through Twitter, especially when you have 75 students in class. (Benefit of technology – larger interaction in teaching)

Researcher: Right.

Dr Ibrahim: Moreover, the lecture is usually for one hour and the number of student in the classroom is 75 and if each student wants to ask a question, the class would be over before we finish everything. Therefore, I have a hashtag on Twitter; I project on the board and if any student has a question, he/she sends it through Twitter and it will be projected automatically on the board. If I felt that the question is important, I stop the lecture and answer the question. The good thing about this is that the students started answering each other's questions. (Benefit of technology) So these are some of the tools I use the class. (Wider education – suggestion of balance in methods)

Researcher: Do you have more programs like this?

Dr Ibrahim: Yes, I have many, but I do not think there is time to mention them all.

Researcher: Yes, sure. Question number 4. How do you think the use of technology compares with more traditional methods of teaching in the classes?

Dr Ibrahim: For me, I think that the most successful technology is the chalk and board. (traditional vs. modern methods – positive for traditional) It is used to show things to the students. It has been used for almost 150 years and people are still using them. For me, I think the technology are tools but not methods of teaching. I can use these tools in the system of electronic education and in the system of problem solving. I can also use it in lecturing, which is a traditional method of teaching. (Balance supported in methods) I think technology is important and can be used in all methods of teaching because our students are using them and if we want to be closer to our students, we have to use it regardless of the teaching method. The content of my subject matter determines what teaching method I use. Now in my courses I use more than ten different teaching methods, but I use technology in some of them depending on the content of subject matter. (Balance widely supported)

Appendix 6 (b) Sample of transcript plus coding: England

Cloe ...the computers that we've had with different applications on the iPad and things were able to map the story kind of electronically. (Class activity different via technology)

RESEARCHER OK.

Cloe Is that the kind of thing that you mean?

RESEARCHER Yeah, yeah.

Cloe Yeah, so we did that, but on the computer, using the interactive whiteboard for all of the children to see. (Benefit of technology in class, wider reach of the teaching)

RESEARCHER You used whiteboard?

Cloe Yeah. We did that together so the children were discussing it and describing and then we pulled up different pictures to map the sequence of the story. (Benefit of technology, stimulating good learning behaviours in students)

RESEARCHER What kind of technology you are using, is it just called whiteboard, or any internal things that you are using?

Cloe It was the interactive whiteboard used with PDF photographs...

RESEARCHER Yeah.

Cloe ...of the three little pigs erm and different sequencing events. (Benefit for learning from technology) So you would get that from a resource site...

RESEARCHER That's right

Cloe ...so Twinkl erm and then use an application on the interactive whiteboard to...

RESEARCHER So you designed this project?

Cloe That was just an idea that I had for a lesson, I didn't design that at all...

RESEARCHER Have you designed like, maybe animation or maybe a story board or maybe a diagram or maybe anything, have you designed anything?

Cloe Yeah using PowerPoint and these sorts of things, and Publisher, we are doing that right now actually...

RESEARCHER Cool, what is Publisher about?

Cloe Publisher is another application erm that you can use, it's a little bit like PowerPoint but it allows you to do articles or.... (Benefit of technology)

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